

A Look at

Kindergarten Through Grade Six in California Public Schools

Transitioning to the Common Core
State Standards in English Language Arts
and Mathematics



A Look at

**Kindergarten Through Grade Six
in California Public Schools**

**Transitioning to the Common Core
State Standards in English Language Arts
and Mathematics**



Publishing Information

A Look at Kindergarten Through Grade Six in California Public Schools: Transitioning to the Common Core State Standards in English Language Arts and Mathematics was developed by the Standards, Curriculum Frameworks, and Instructional Resources Division of the California Department of Education (CDE). This publication was edited by Faye Ong and John McLean, working in cooperation with Cynthia Gunderson, Education Programs Consultant. It was designed and prepared for printing by the staff of CDE Press; the cover and interior design were created by Cheryl McDonald. It was published by the Department of Education, 1430 N Street, Sacramento, CA 95814-5901. It was distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

© 2011 by the California Department of Education
All rights reserved

ISBN 978-0-8011-1717-6

Reproduction of this document for resale, in whole or in part, is not authorized.

Ordering Information

Copies of this publication are available for purchase from the California Department of Education. For prices and ordering information, please visit the CDE Web site at <http://www.cde.ca.gov/re/pn/rc/> or call the CDE Press Sales Office at 1-800-995-4099.

Notice

The guidance in *A Look at Kindergarten Through Grade Six in California Public Schools: Transitioning to the Common Core State Standards in English Language Arts and Mathematics* is not binding on local educational agencies or other entities. Except for the statutes, regulations, and court decisions that are referenced herein, the document is exemplary, and compliance with it is not mandatory. (See *Education Code* Section 33308.5.)

Contents

A Message from the State Superintendent of Public Instruction.....	v
Acknowledgments.....	vi
Introduction.....	1
Kindergarten Curriculum.....	17
First-Grade Curriculum.....	47
Second-Grade Curriculum.....	73
Third-Grade Curriculum.....	103
Fourth-Grade Curriculum.....	139
Fifth-Grade Curriculum.....	173
Sixth-Grade Curriculum.....	209
Appendix A: CCSS College and Career Readiness	
Anchor Standards.....	251
Appendix B: Standards for Mathematical Practice.....	254
References.....	259

A Message from the State Superintendent of Public Instruction

In 1997, California adopted its first set of content standards in English language arts and mathematics. These educational standards provided clear goals for student learning and helped teachers determine the knowledge and skills students needed to be successful in classrooms and careers. In 2010, the California State Board of Education adopted new Common Core State Standards (CCSS), with California additions, in both mathematics and English language arts. The CCSS maintain the rigor of the 1997 standards and help ensure that students consistently receive a high-quality education, from school to school and from state to state.

A Look at Kindergarten Through Grade Six in California Public Schools: Transitioning to the Common Core State Standards in English Language Arts and Mathematics is a resource for teachers, administrators, and parents during the first steps to incorporate the CCSS in grade-level curriculum.

The publication is based on *A Look at Kindergarten Through Grade Six in California Public Schools and the Common Core State Standards*. This online publication contains all content areas (history–social science, science, physical education, health, visual and performing arts, world languages, and school library) and is attached as a CD-ROM for reference.

As the CCSS are put into practice over the next few years, new curriculum frameworks, professional development opportunities, and standards-based instructional materials and assessments will continue to be developed. In the meantime, *A Look at Kindergarten Through Grade Six in California Public Schools: Transitioning to the Common Core State Standards in English Language Arts and Mathematics* provides an initial step in implementation.

A Look at Kindergarten Through Grade Six in California Public Schools: Transitioning to the Common Core State Standards in English Language Arts and Mathematics serves as another tool for improving the academic achievement of California's students. It represents the California Department of Education's ongoing commitment to provide resources and guidance to parents and educators dedicated to making a difference in the future of our students.



TOM TORLAKSON
State Superintendent of Public Instruction

Acknowledgments

This document represents a collaborative effort by the staff of four divisions of the California Department of Education (CDE), under the direction of **Richard Zeiger**, Chief Deputy Superintendent; **Geno Flores**, former Chief Deputy Superintendent; and **Deborah Sigman**, Deputy Superintendent, Curriculum, Learning, and Accountability Branch.

The Standards, Curriculum Frameworks, and Instructional Resources Division (SCFIRD) staff members who provided administrative support and coordinated the development and publication of the document were **Tom Adams**, Director; **Veronica Aguila**, Administrator I; **José Ortega**, Administrator I; and **Cynthia Gunderson**, Lead Consultant.

Appreciation is extended to the SCFIRD Education Programs Consultants who were the principal writers of the document: **Deborah Franklin**, **Ken McDonald**, **Barbara Murchison**, **Lillian Perez**, and **Tony Quirarte**, along with **Susan Martimo** and **Mary Sprague**, Retired Annuitants.

Additionally, the following SCFIRD staff members contributed to the editorial and design work on the publication: **David Almquist** and **Jim Long**, Education Programs Consultants; **Joy Kessel**, Staff Services Analyst; and **Lisa Leiplein**, Associate Governmental Program Analyst.

Special thanks are due to CDE staff members who reviewed drafts and provided many helpful comments and suggestions. Appreciation is also extended to the following CDE staff members, who participated in the Department's Common Core meetings and contributed thoughtful feedback and expertise as the document was being developed:

Phil Lafontaine, Director, English Learner and Curriculum Support Division

Jim Greco, Administrator I, Math and Science Leadership Office

Mary Autry, Education Programs Consultant, Literacy, History, and Arts Leadership Office

Stacey Christopher, Education Programs Consultant, Math and Science Leadership Office

Kristen Cruz, former Visiting Educator, Literacy, History, and Arts Leadership Office

Kathy Pettibone, former Education Programs Consultant, Title II Leadership Office

Shobhana Rishi, Education Programs Consultant, English Learner Accountability Unit

Carrie Roberts, Administrator I, Literacy, History, and Arts Leadership Office

Rachel Perry, Director, Assessment and Accountability Division

John Boivin, Education Research and Evaluation Administrator,
Standardized Testing and Reporting (STAR) Office

Kristen Brown, Education Research and Evaluation Consultant,
Division Support

Jane Liang, Education Research and Evaluation Consultant, STAR
Office

Blessing Mupanduki, Education Programs Consultant, STAR Office

Patrick Ainsworth, Director, Secondary, Career, and Adult Learning
Division

Christopher Dowell, Education Programs Consultant, Middle Grades
Improvement Office

Jerry Winthrop, Education Programs Consultant, High School
Transformation Office

Special thanks also go to **Jack O’Connell**, former State Superintendent of Public Instruction, whose leadership spearheaded the launching of this project.

Introduction



This publication was developed as a service to teachers, parents, administrators, and others who want to know what students are expected to learn at specific grade levels in English language arts and mathematics. It was also developed to assist educators with the transition from the standards adopted in 1997 for English language arts and mathematics to the Common Core State Standards (CCSS), with California additions, for English language arts and mathematics adopted in August 2010.

This course-level guide is intended to be an overview. It provides basic information on education for students in California. Those interested in a more in-depth discussion of any subject area are encouraged to review the state-adopted curriculum frameworks for kindergarten through grade twelve. These documents are available for purchase from the California Department of Education (CDE) Press or may be downloaded, free of charge, at the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

The California *Education Code (EC)* mandates the adopted course of study for grades one through twelve. *EC* Section 51210 states that the adopted course of study for students in grades one through six shall include instruction in the following areas of study:

- (a) English, including knowledge of, and appreciation for, literature and the language, as well as the skills of speaking, reading, listening, spelling, handwriting, and composition.
- (b) Mathematics, including concepts, operational skills, and problem solving.
- (c) Social sciences, drawing upon the disciplines of anthropology, economics, geography, history, political science, psychology, and sociology, designed to fit the maturity of the pupils. Instruction shall provide a foundation for understanding the history, resources, development, and government of California and the United States of America; the development of the American economic system including the role of the entrepreneur and labor; the relations of persons to their human and natural environment; eastern and western cultures and civilizations; contemporary issues; and the wise use of natural resources.

- (d) Science, including the biological and physical aspects, with emphasis on the processes of experimental inquiry and on the place of humans in ecological systems.
- (e) Visual and performing arts, including instruction in the subjects of dance, music, theatre, and visual arts, aimed at the development of aesthetic appreciation and the skills of creative expression.
- (f) Health, including instruction in the principles and practices of individual, family, and community health.
- (g) Physical education, with emphasis on physical activities for pupils that may be conducive to health and vigor of body and mind, for a total period of time of not less than 200 minutes each 10 school days, exclusive of recesses and the lunch period.
- (h) Other studies that may be prescribed by the governing board.

Every school in California is required to provide instruction in the subjects named above, although physical education is the only subject that has statutorily required minutes of instruction. The schedule of the instructional day and week is determined by the teacher and the local school and district administration. Although world language is not a required subject for the elementary grades, *EC* Section 51212 states that the Legislature encourages “the establishment of programs of instruction in foreign language, with instruction beginning as early as feasible for each school district.”

The 1997 California Standards and the Common Core State Standards

California’s standards have been hailed for their rigor, for setting high expectations for all students. In 1997, California adopted content standards in English language arts and mathematics. Since that time, standards have been adopted in history–social science, science, visual and performing arts, health, world languages, physical education, school library, and career technical education. California also has standards in English-language development (ELD), which outline the stages English learners progress through as they become proficient in the English language. All of the content standards are posted in PDF and Microsoft Word format on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/index.asp>.

On August 2, 2010, as part of a multistate initiative to establish clear and consistent education standards, the California State Board of Education voted unanimously to adopt new standards for both mathematics and English language arts. The new CCSS are research-based, internationally benchmarked, and designed to prepare every student for success in college and the workplace.

The process for implementing these new standards is just beginning. It will take several years to implement the new CCSS, as the process will

include adopting aligned instructional materials, revising professional development, and creating new statewide assessments. For more information about the implementation of the CCSS, and for links to download the new standards, please visit the CDE Common Core State Standards Resources Web page at <http://www.cde.ca.gov/ci/cc/>. During this transition period, educators, parents, and students will have an opportunity to become familiar with the many similarities between California's 1997 content standards and the CCSS and to learn about the enhancements for each grade level.

All of California's content standards provide detailed expectations for what students should know and be able to do at each grade level. Although the standards are intended to provide objectives for students and teachers, decisions about classroom instruction are generally made at the local level by the teacher, local administrator, and/or the locally elected school board.

Universal Access

The ultimate goal of the education system in California is to ensure that all students have access to high-quality curriculum and instruction so that they may meet or exceed the knowledge and skills outlined in the state's academic content standards. There have been dramatic shifts in the student population in recent years. Ethnically and racially diverse students made up 53 percent of the student population in 1990 (California Department of Education 1991). In 2008–09, this group represented 72 percent, making California's student population the most diverse in the nation (California Department of Education 2010a). Approximately 25 percent of California's students are English learners and over 50 percent of students qualify for free and reduced-price lunch programs (California Department of Education 2010a).

The diversity of California's students presents unique opportunities and significant challenges for instruction. Students come to school with a wide variety of skills, abilities, and interests as well as different levels of proficiency in English and other languages. Additionally, as students begin to develop an understanding of their role in their own families and communities, the differences in cultural norms, traditions, and values between themselves and others are likely to become more evident. The wider the variation of the student population in each classroom, the more complex the teacher's role becomes in organizing high-quality curriculum and instruction. Teachers must create learning environments in which differences are respected and supported by teacher and student alike. Teachers who are aware of their own cultural values and willing to learn about and appreciate other people's cultural values can establish safe learning environments for students.

The academic success of students with special needs depends on the teacher's skill in providing instruction and support to all students. A student's 504 Plan or individualized education program (IEP) often includes suggested techniques to ensure that the student has full access to a program designed to provide appropriate learning opportunities and that uses instructional materials and strategies that best meet his or her needs. When systematically planned differentiation strategies are used, students with special needs can benefit from appropriately challenging curriculum and instruction. Strategies for differentiating instruction for students include adjusting pacing, complexity, novelty, and depth. Despite modifications made, however, the focus is always to help students learn grade-level content to the best of their ability.

Response to Intervention (RtI) has emerged on the national scene as an effective strategy for serving individual students and for identifying students with learning disabilities. California has expanded the notion of RtI to RtI², which stands for Response to Instruction and Intervention. RtI² integrates resources from general education, categorical programs, and special education through a comprehensive system of core instruction and interventions to benefit every student. For more information about RtI², please visit the CDE Response to Instruction & Intervention Web page at <http://www.cde.ca.gov/ci/cr/ri/>.

For English learners to benefit from universal access to the curriculum, teachers may need additional support to plan instruction, differentiate curriculum, infuse instruction with specially designed academic instruction in English (SDAIE) techniques, and use grouping strategies effectively. Instruction in content areas should be promoted despite low literacy or limited proficiency in the English language, along with the critical-thinking and analytical skills and the particular reading strategies of the disciplines. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive, up-to-date strategies to serve English learners. The book includes guidelines for teaching ELD and SDAIE strategies, as well as recommended instructional practices. The publication is available on the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

Teachers may also implement other strategies to meet the needs of students with reading difficulties, students with disabilities, advanced learners, English learners, students with culturally diverse backgrounds, and students with combinations of special instructional needs.

Strategies useful in planning for universal access may:

- utilize frequent progress-monitoring assessments;
- engage in careful planning and organization;
- differentiate to meet students' instructional needs;

- employ flexible grouping strategies;
- enlist help from others;
- use technology or other instructional devices.

California's Achievement Gap

The achievement gap is a persistent disparity in performance on state-wide assessments, with white and Asian American students generally outperforming African American and Latino students. The CDE has identified a gap in performance on the California Standards Tests (CSTs) in English language arts and mathematics that has persisted despite improvements across all grade levels in recent years. Although the number of students demonstrating proficiency on these statewide assessments has grown, the gap between white/Asian American students and African Americans/Latinos remains significant, despite a narrowing in 2009–10 (California Department of Education 2010c).

This achievement gap is often explained in terms of the socioeconomic status of students, but a deeper study of assessment data indicates that this is not the sole determinant behind student outcomes. In fact, when socioeconomic status is controlled for, the achievement gap remains starkly evident. For example, on the 2010 Algebra 1 CST, 23 percent of African American students and 27 percent of Latino students who were not classified as “socioeconomically disadvantaged” scored at the level of “proficient” or higher. By comparison, 27 percent of white students who were classified as socioeconomically disadvantaged scored at “proficient” or higher on the same assessment (47 percent of white, nonsocioeconomically disadvantaged students scored “proficient” or higher on the 2010 Algebra 1 CST). On most of the English language arts and mathematics CSTs, nondisadvantaged African American and Latino students performed only slightly higher than disadvantaged whites, although in some cases they performed at a lower level. These numbers show that middle-class minority students are having difficulty outperforming white students who come from disadvantaged backgrounds. Clearly, this indicates that there are deeper causal factors that transcend economic status (California Department of Education 2010d).

Closing the Achievement Gap: Report of Superintendent Jack O’Connell’s California P-16 Council (California Department of Education 2007a) is a report that identifies four primary themes to address the issues that inhibit student learning. These areas are access, culture and climate, expectations, and strategies (often referred to collectively as “ACES”).

- **Access:** the extent to which all students have equitable access to basic conditions, such as qualified, effective teachers; rigorous, standards-aligned curriculum; and accelerated interventions.

- **Culture and Climate:** the extent to which the learning environment is safe, promotes a sense of belonging, and fosters strong, positive relationships among students, among school staff, and between the school and home/community.
- **Expectations:** the extent to which a culture of excellence exists for students and adults alike and for getting all to meet identified high standards. It is a responsibility embraced by the school community.
- **Strategies:** the extent to which evidence-based or promising teaching, leadership, and organizational practices are employed by practitioners at all levels in areas such as delivery of standards-aligned instructional programs, standards of professional practice, needs-based allocation of resources, collegial accountability and collaboration, articulation across grade spans, and leadership development.

The P-16 Council issued 14 recommendations, two of which focused on academic rigor. This grade-level document describes more clearly what constitutes a rigorous curriculum based on the adopted content standards. For more information about closing the achievement gap, please visit the CDE Web page at <http://www.cde.ca.gov/eo/in/ag/>.

Curriculum and instruction are influenced by more than content knowledge, standards, and specific subject objectives. This section includes some of the other areas and issues that influence and connect a grade-level course of study, including statewide testing and accountability, federal accountability, and funding. In addition, brief overviews of classroom assessment, instructional materials, and teacher standards are provided.

Statewide Testing and Accountability

Students in grades two through eleven participate in the state's Standardized Testing and Reporting (STAR) program, which consists of assessments in multiple subjects. The assessment results are used in statewide and federal accountability systems and are used to gauge the effectiveness of each school's instructional program at developing student proficiency in the knowledge and skills described in the content standards. Districts with consistently low achievement in these areas may face state intervention designed to help them improve students' academic performance.

The adoption of the CCSS, with California additions, will lead to the development of new assessments and performance-level descriptors that explain what students know and can do in English language arts and mathematics.¹ On June 9, 2011, California joined the SMARTER Balanced Assessment Consortium (SBAC) as a governing state. The SBAC is

1. The performance-level descriptors for the California Standards Test are available at <http://starsamplequestions.org/starRTQ/search.jsp> [Outside Source]. Currently, there are no performance-level descriptors for the CCSS.

a national consortium of 29 states that have been working collaboratively to develop a student assessment system aligned with the CCSS. Of those 29, California is among 19 governing states that allow decision-making participation. The remaining 10 are advisory states. The SBAC focus is on annual assessment of students in grades three through eight in English language arts and mathematics and once in grades ten through twelve under current federal requirements. The SBAC has received federal grants to fund the development of the new assessments, which are anticipated to be fully implemented by the 2014-15 school year, with field testing in 2012-13 and 2013-014. To obtain the most current information about California's participation in the SBAC, visit the CDE SMARTER Balanced Assessment Consortium Web page at <http://www.cde.ca.gov/ta/tg/sa/smarterbalanced.asp>.

The California English Language Development Test (CELDT) is administered to students who are English learners. The CELDT has three purposes: (1) to identify students who have limited English proficiency; (2) to determine the level of proficiency of students who have limited English skills and knowledge; and (3) to assess the progress of English learners in acquiring the skills of listening, reading, speaking, and writing in English. The CELDT performance levels are *beginning*, *early intermediate*, *intermediate*, *early advanced*, and *advanced*.

Federal Accountability and Funding

Federal law requires all states to implement a statewide federal accountability system based on challenging state standards in reading/language arts and mathematics. Federal law requires the annual testing of students and the identification of annual academic performance goals (as measured by student achievement on statewide, standards-aligned assessments). Assessment results are broken down according to students' race, ethnicity, disability, and limited English proficiency to ensure that no group is left behind. *Adequate yearly progress* (AYP) is the term used to describe the annual academic performance goals established for all schools, local educational agencies (LEAs), and the state as a whole. AYP is required under Title I of the federal Elementary and Secondary Education Act. Additional information is available at the CDE Adequate Yearly Progress Web page at <http://www.cde.ca.gov/ta/ac/ay/>.

Part of the AYP calculation is based on the results of the assessments in the STAR program for students in grades two through eight and in the California High School Exit Examination (CAHSEE) for students in grade ten. Assessments of students' progress in English language arts and mathematics are included in the AYP report. For additional information, please review the table "Assessment Results Used in 2010 AYP Calculations," which is included in the *2010 Adequate Yearly Progress Report: Information Guide* posted at <http://www.cde.ca.gov/ta/ac/ay/documents/infoguide10.pdf>.

Title I and Title III are major sources of federal funding for K–12 education in California. Most LEAs in California receive funding from these programs. Both programs provide support for improving students' academic achievement, though the students served and the requirements of the programs differ.

Title I

Title I, Part A, federal funds help LEAs meet the educational needs of low-achieving students in California's highest-poverty schools. Funds are used to support effective, research-based educational strategies to close the achievement gap between high- and low-performing students and enable the students to meet the state's challenging academic standards. LEAs and schools that fail to make AYP goals are subject to improvement and corrective-action measures. In California, Program Improvement (PI) is the formal designation for Title I-funded schools and LEAs that fail to make AYP for two consecutive years. Additional information is available on the CDE Title I, Part A, Web page at <http://www.cde.ca.gov/sp/sw/t1/titleparta.asp>.

Title III

Title III, Part A, is officially known as the English Language Acquisition, Language Enhancement, and Academic Achievement Act. The overarching purpose of Title III is to ensure that limited-English-proficient students (called English learners under California law) attain English proficiency and meet the same challenging academic content and achievement standards that other students are expected to meet. LEAs must use Title III funds to implement language instruction programs designed to help English learners meet these standards. Title III requires that states hold LEAs accountable for meeting three annual, measurable achievement objectives for English learners: (1) making annual progress on the CELDT, (2) attaining English proficiency on the CELDT, and (3) meeting AYP at the local educational agency level. Additional information is available on the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Classroom Assessment

Customized, rigorous, and thoughtful assessment can guide instruction, improve student learning, and develop thinking skills in a particular discipline. The key to using assessments effectively and efficiently in a program of instruction is to recognize that different types of assessment tools are used for different purposes. The following assessments are crucial for measuring student mastery of the knowledge and skills outlined in the subject-area content standards:

- **Entry-level assessment:** Do students possess the necessary prerequisite skills and knowledge expected at their grade level? Do they already know some of the material to be taught? Because entry-level

assessments determine the level of student readiness for a given unit or course, they should be developed after the summative assessment is designed.

- **Monitoring of progress** (also known as **formative assessment**): Are students progressing adequately toward mastery of the standards? Do they need reteaching? Is emphasis on certain instructional components or skills needed in the next series of lessons or units? Assessments for monitoring progress should be designed after the entry-level assessment—and therefore after the summative assessment—and include both formal and informal classroom measures.
- **Summative assessment**: Have students achieved the goals defined by a given standard or group of standards? These assessments include the content and skills that students are expected to have learned and that are also covered in the various entry-level and monitoring assessments. Summative assessments are often used for grading students.

Although many other purposes exist for assessment, the three listed above are critical because they inform instruction. Taken together, they provide a road map to mastering the standards: the starting place, the routes to take, the points at which to change routes, and the destination.

Instructional Materials

Basic instructional materials are selected by the local governing board from a list of materials adopted by the California State Board of Education (SBE). The SBE adopts instructional materials in reading/language arts, mathematics, science, history–social science, health, world languages, and visual and performing arts. Local districts must provide for “substantial teacher involvement” in the selection of materials and promote the involvement of parents and other members of the community in the selection process (*EC* Section 60002). Districts are required to provide every student with standards-aligned instructional materials in the four core academic subject areas. The materials are to be used in class and made available to take home (*EC* Section 60119). More information about instructional materials, including a link to the price list of currently adopted materials, is posted at the CDE Curriculum Frameworks and Instructional Materials Web page at <http://www.cde.ca.gov/ci/cr/cf/index.asp>.

Electronic materials are also included on the adoption lists as options that districts may select, and several programs are entirely digital. The California Learning Resource Network (<http://www.CLRN.org> [Outside Source]) conducts ongoing reviews of supplemental, technology-based materials for alignment with state content standards. Governing boards of school districts may select supplemental instructional materials for use in district schools. More information about supplemental instructional

materials is posted on the CDE Social Content Review Web page at <http://www.cde.ca.gov/ci/cr/cf/lc.asp>.

In July 2009 and again in March 2011, as a result of the state budget crisis, the California Legislature and Governor suspended the adoption of instructional materials until the 2014–15 school year. Districts may continue to purchase and use materials from past adoption lists until new materials are adopted by the SBE. New adoptions in reading/language arts and mathematics based on the CCSS will take place, but a timeline for those adoptions has not yet been approved. More information about the implementation of the CCSS is posted on the CDE Common Core State Standards Resources Web page at <http://www.cde.ca.gov/ci/cc/>.

California Standards for the Teaching Profession

One of the most important factors in student achievement is the teacher. According to the U.S. Department of Education’s Teacher-to-Teacher Initiative:

Research confirms that teachers are the single most important factor in raising student achievement. Highly qualified teachers can maximize every child’s potential to meet high academic standards. Good teachers are essential to closing the achievement gap and ensuring that no child is left behind. (U.S. Department of Education 2007)

The California Standards for the Teaching Profession (CSTP), available on the California Commission on Teacher Credentialing Web site at <http://www.ctc.ca.gov/educator-prep/standards/CSTP-2009.pdf> [Outside Source], provide a common language and vision of the scope and complexity of teaching to enable teachers to define and develop their practice. The CSTP were revised in 2009 based on current research and expert advice pertaining to best teaching practices and are an integral part of the efforts to foster excellence in teaching and learning.

The standards are organized around the following domains of teaching practice:

- Engaging and supporting all students in learning
- Creating and maintaining effective environments for student learning
- Understanding and organizing subject matter for student learning
- Planning instruction and designing learning experiences for all students
- Assessing students for learning
- Developing as a professional educator

Although all of the categories affect teaching and learning, the “Understanding and organizing subject matter for student learning” standard directly affects curriculum. The key elements in this category include:

- demonstrating knowledge of subject-matter content, academic content standards, and curriculum frameworks;
- applying knowledge of student development and proficiencies to ensure student understanding of subject matter;
- organizing curriculum to facilitate student understanding of the subject matter;
- utilizing instructional strategies that are appropriate to the subject matter;
- using and adapting resources, technologies, and standards-aligned instructional materials, including adopted materials, to make subject matter accessible to all students;
- addressing the needs of English learners and students with special needs to provide equitable access to content.

Other Resources

The following list contains Internet-based resources from the CDE, the U.S. government, and other government agencies that may be useful to teachers, administrators, and parents. CDE Web pages typically list a contact person, telephone number, and e-mail address that can be used to seek clarification and answer questions on any of these topics.

Courses of Study

- **Elementary School Resources** (<http://www.cde.ca.gov/ci/gc/em/index.asp>)
This Web page includes links to various resources about elementary education in California.
- **Elementary Makes the Grade!** (<http://www.cde.ca.gov/ci/gc/em/emg.asp>)
This Web page presents clear recommendations on how schools can achieve a coordinated system in which standards, assessment, accountability, and curriculum are aligned and focused on ensuring that all students meet grade-level content standards.
- **Middle Grades Courses of Study** (<http://www.cde.ca.gov/ci/gc/mg/documents/mgcorstydinstrectm.doc>)
This Web page includes information based on requirements in the California *Education Code* and recommendations from the CDE and national subject-area associations.
- **Taking Center Stage** (<http://www.cde.ca.gov/ci/gc/mg/tcs.asp>)
This Web page provides clear recommendations on how middle schools can align standards, assessment, accountability, and curriculum to ensure that all students meet grade-level content standards.

The CDE also developed **Taking Center Stage, Act II** (<http://pubs.cde.ca.gov/tcsii/>) [Outside Source], a Web portal of resources for middle grades educators.

- **State Minimum Course Requirements** (<http://www.cde.ca.gov/ci/g/hs/hmgrmin.asp>)

This Web page lists state-level course requirements for high school graduation in California.

California's Content Standards

- **Content Standards** (<http://www.cde.ca.gov/be/st/ss/index.asp>)

This Web page includes the complete standards documents in Microsoft Word (DOC) and Adobe Portable Document Format (PDF) versions for download.

- **Common Core State Standards** (<http://www.cde.ca.gov/ci/cc/>)

A Web page that contains information, download links, and FAQs related to the new Common Core State Standards in English language arts and mathematics.

Universal Access

- **English Learners** (<http://www.cde.ca.gov/sp/el/>)

This Web page provides a set of links to programs and information to improve the language proficiency of English learners and help them meet content standards adopted by the State Board of Education.

- **Special Education** (<http://www.cde.ca.gov/sp/se/>)

This Web page offers information and resources to serve the unique needs of persons with disabilities so that each person will meet or exceed high standards of achievement in academic and nonacademic skills.

- **Clearinghouse for Specialized Media and Translations (CSMT)** (<http://www.cde.ca.gov/re/pn/sm/>)

This unit (a part of the Standards, Curriculum Frameworks, and Instructional Resources Division) provides materials and information for students who need access to core curriculum in various formats (e.g., braille, large print).

- **Gifted and Talented Education (GATE)** (<http://www.cde.ca.gov/sp/gt/gt/>)

The Web page provides information about the purpose of the GATE program, requests for applications and application renewal dates, principal apportionment calculations, Advanced Placement, and International Baccalaureate programs.

California's Achievement Gap

- **Brokers of Expertise** (<http://www.myboe.org/>) [Outside Source]
Brokers of Expertise is a social network that allows educators to search for and follow colleagues who have had success in teaching specific California content standards or who work with similar types of students. Users share instructional practices through links, video, pictures, or documents, allowing other teachers to replicate similar innovations in their classrooms. The Web site also lists where each resource came from and provides a blog where educators can share their thoughts and feedback.
- **The CDE on iTunes U** (<http://www.cde.ca.gov/re/mm/it/>)
A partnership between the CDE and Apple, Inc., the CDE on iTunes U is a free site that offers a centralized, shared repository of quality professional development content produced by local educational agencies (districts and schools), other educational entities, and the CDE. The site posts a variety of content assets and formats (videos, Webinars, podcasts, presentations, and PDFs).
- **Closing the Achievement Gap** (<http://www.closingtheachievement-gap.org/cs/ctag/print/htdocs/home.htm>) [Outside Source]
This Web page serves as an electronic hub for helpful information, research, and success stories about efforts to close the achievement gap in California.

English Language Arts

- **CDE Reading/Language Arts** (<http://www.cde.ca.gov/ci/rl/index.asp>)
This Web page provides links to current curriculum frameworks and content standards, instructional materials and resources, and a collection of recommended literature for students in kindergarten through grade twelve.
- **CDE Reading/Language Arts Professional Development** (<http://www.cde.ca.gov/pd/ca/rl/>)
This Web page offers resources for professional development to improve classroom instruction in reading and language arts. It includes links to the *Parent Handbook for English Language Arts*, the Reading First federal program, and outside resources for teaching reading.
- **California Reading and Literature Project** (<http://csmc.ucop.edu/projects/view/crlp/>) [Outside Source]
This project provides professional development programs, resources, and research in language and literacy instruction, including a focus on academic English-language development, and links universities with schools and districts in collaborative partnerships.

- **California Writing Project** (<http://csmp.ucop.edu/projects/view/cwp/>) [Outside Source]
The California Writing Project provides professional development programs, resources, and research to improve student writing and learning by improving the teaching of writing.
- **SCORE Language Arts** (<http://www.sdcoe.k12.ca.us/SCORE/welcome.html>) [Outside Source]
This Web page is a connection to cyber (literature) guides, activity banks, and phonics links for language arts.
- **U.S. Department of Education—Lessons in Reading/Language Arts** (http://www.free.ed.gov/subjects.cfm?subject_id=78) [Outside Source]
This Web page provides a source of lessons and units for teaching reading and language arts.

Mathematics

- **CDE Mathematics** (<http://www.cde.ca.gov/pd/ca/ma/index.asp>)
This site provides resources related to mathematics curriculum and instruction for administrators, educators, parents, and students. It includes links to various mathematics professional development programs and resources, a parent handbook, graduation requirements, foundational documents that guide California's mathematics instruction, and contacts within the CDE.
- **California Mathematics Project** (<http://csmp.ucop.edu/projects/view/cmp/>) [Outside Source]
The California Mathematics Project provides support for ongoing professional development that enhances teachers' mathematical content knowledge and pedagogical content knowledge aligned with the California mathematics standards and framework.
- **CDE CalServe K–12 Service-Learning Initiative** (<http://www.cde.ca.gov/ci/cr/sl>)
This Web page provides information about the CalServe K–12 Service-Learning Initiative, including the California STEM Service-Learning Initiative. The initiative supports secondary school and higher-education students working together to meet community needs through a STEM (Science, Technology, Engineering, and Mathematics) design process.

Statewide Accountability

- **Testing and Accountability Web Page** (<http://www.cde.ca.gov/ta/>)
This Web page provides links to information about various elements of the statewide accountability system, including the CAHSEE, STAR program, and statewide interventions.

- **DataQuest** (<http://dq.cde.ca.gov/dataquest/>)
Dataquest is an information source for state, county, district, and school-level reports. It provides information on a variety of topics, including test scores, enrollment figures, and school staffing.
- **STAR Test Information for Parents** (<http://www.starsamplequestions.org/>) [Outside Source]
At this Web site parents can learn more about the California Standardized Testing and Reporting (STAR) program and view sample questions released from previously administered STAR tests.

Federal Accountability

- **Elementary and Secondary Education Act** (<http://www.cde.ca.gov/nclb/>)
This Web page provides links to state and federal resources about the requirements of the Elementary and Secondary Education Act.
- **Title I, Part A** (<http://www.cde.ca.gov/sp/sw/t1/titleparta.asp>)
This Web page provides information about federal requirements and the allowable uses for these funds.
- **Title III** (<http://www.cde.ca.gov/sp/el/t3/>)
This Web page provides information about language instruction for limited-English-proficient and immigrant students.

Instructional Materials

- **Instructional Materials Price List** (<http://www3.cde.ca.gov/impricelist/implsearch.aspx>)
The CDE Web page has a searchable list of all state-adopted instructional materials for kindergarten through grade eight. The list is updated with each new adoption of instructional materials, and publishers have the right to submit price increases for existing lists every two years.
- **Social Content Review** (<http://www.cde.ca.gov/ci/cr/cf/lc.asp>)
This Web page includes a searchable CDE database of supplemental instructional materials that have passed a social content review. Although these materials are not considered state-approved or state-adopted, they have met all of the requirements in the *Education Code* for social content.
- **California Learning Resource Network** (<http://www.clrn.org/home/>) [Outside Source]
The California Learning Resource Network (CLRN) Web site provides information and Web links on electronic, standards-aligned learning resources (e.g., software, videos, DVDs, CD-ROMs) and assessment tools.

- **Instructional Materials Ordering and Distribution System (IMODS)** (<http://csmt.cde.ca.gov/index.aspx>)

Free instructional materials are provided for students with disabilities through the CDE Clearinghouse for Specialized Media and Translations in various formats, such as braille, large-print, audio, digital talking books, and electronic files.

California Standards for the Teaching Profession

- **California Commission on Teacher Credentialing** (<http://www.ctc.ca.gov/>) [Outside Source]

This Web site provides information about credentialing requirements for California teachers. The 2009 California Standards for the Teaching Profession (CSTP) are posted at <http://www.ctc.ca.gov/educator-prep/standards/CSTP-2009.pdf> [Outside Source].

Kindergarten Curriculum



What will my child learn in English language arts and mathematics in kindergarten?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance kindergarten curriculum?

Will the new legislation that provides the option of a transitional kindergarten affect the curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of kindergarten. Each section includes a brief overview of what the student should have learned before entering kindergarten, followed by a description of the kindergarten standards. Each subject concludes with a list of the kindergarten standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>. Those interested in prekindergarten programs are encouraged to consult the preschool learning foundations and curriculum framework available on the CDE Child Development Web page at <http://www.cde.ca.gov/sp/cd/re/>.

On September 30, 2010, the California Legislature enacted Senate Bill 1381, which changed the date by which a child must turn five years old to enter kindergarten. The law also created the opportunity for students who do not meet the new start-date requirements to enroll in a *transitional kindergarten*—defined as a program that uses a modified, age- and developmentally appropriate kindergarten curriculum and allows students to attend a structured, high-quality school-readiness program. Currently, a child must turn five on or before December 2 to be admitted to kindergarten. In the 2012–13 school year, the date changes to November 1, and in 2013–14 it changes to October 1. In 2015–16 and every year thereafter, the child must turn five on or before September 1 to be admitted to kindergarten.

English Language Arts

Overview

In kindergarten, students learn the foundational reading and English language arts skills that set them on the path to become lifelong readers, writers, and effective communicators. Reading is the most important skill that students develop during their early academic years, and kindergarten through grade three is the optimal period of time for such learning. The challenge for teachers is to organize and deliver effective, efficient instruction in the essential skills and concepts that students must master. Instruction is differentiated to meet the wide range of students' abilities.

Standards-based instruction is critical to the kindergarten curriculum. Such instruction develops students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus more on informational text and content-related vocabulary, opinion pieces, informative/explanatory writing, and collaborative conversations on texts and grade-level topics.

This section provides an overview of the new CCSS for kindergarten English language arts. It includes a review of the important English language arts skills and concepts students should have learned before entering kindergarten (prerequisite skills) and guidance to ensure success for English learners. A complete list of the kindergarten CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the kindergarten 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Kindergarten Students Should Know

Students entering kindergarten may be four to six years old and bring varied life experiences, social skills, and characteristics of physical and intellectual development. They enter kindergarten with a wide range of individual differences in their prior opportunities to hear, see, and learn the English language and alphabetic writing system. Therefore, it is important for teachers to assess kindergarten students early in the school year to develop instructional objectives that most effectively meet their students' instructional needs.

Students may or may not have received prekindergarten instruction that included literacy development in oral language comprehension, vocabulary, alphabet knowledge, phonological awareness, and print knowledge. They may have been exposed to the alphabet; had the opportunity to see, play with, and manipulate letters; and used letters in meaningful activities, such as spelling their names. These students may enter kindergarten already having developed phonological awareness through word play, songs, and rhyming games. Students may have had experience with writing by making cards or writing explanations for their drawings. Students may have been exposed to fiction and nonfiction print materials, including books and magazines, at home or in preschool. On the other hand, there may be many students who have not had as many literacy and English-language experiences, students who have had exposure to reading and writing in only their primary language, or others who have had no literary experiences or exposure. Providing the most appropriate instructional support depends on the needs of each student.

There are many ways to help prepare a child for success in kindergarten and beyond. One of the best ways is participation in a quality preschool program. The *California Preschool Learning Foundations, Volume 1* (California Department of Education 2008) describes the knowledge, skills, and competencies that children typically attain at around 48 and 60 months of age when they participate in a high-quality preschool program and with adequate support. Students are better prepared for kindergarten if parents and families have read to them, taught them about books and print, had discussions and asked questions while reading stories, and exposed them to the alphabet and writing.

What Students Learn in Kindergarten

Instruction in kindergarten is focused on developing foundational skills that prepare students for later learning in all content areas, including English language arts. Students who learn to read in kindergarten through grade three will be able to read to learn in later grades. A primary focus of language arts instruction in kindergarten is helping students make sense of

the alphabet and its role in reading. It is critical that students develop phonological awareness so they can move on to decoding words; yet reading in kindergarten is not merely decoding words. In kindergarten, students learn beginning skills to comprehend and analyze what they are reading.

Kindergarten students begin to develop writing skills by using a combination of drawing, dictation, and writing to express opinions, relate an event, or provide information. With guidance and support from adults, they learn to use digital tools to produce and publish writings. Kindergarten students develop skills in speaking and listening through discussions with peers and adults. In both writing and speaking, students learn the conventions of English.

Students also have to understand and use academic language to succeed in school. *Academic language* refers to the language of literacy and books, tests, and formal writing. It can be words or phrases that apply to specific content areas or that are used to express abstract concepts or feelings. In kindergarten, students learn academic language in context while reading, writing, listening, and engaging in discussions about books and grade-level topics.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

To build a strong base for reading comprehension, both the 1997 California English language arts standards and the CCSS focus on the important elements of a story. Students identify characters, settings, and major events in a story; they ask and answer questions about the essential elements of a story and retell familiar stories. Students use illustrations and context to make predictions, and they identify common types of texts (e.g., storybooks and poems). The CCSS call for more analysis than do the 1997 California English language arts standards by asking students to compare and contrast the adventures and experiences of characters in familiar stories. In addition, students not only locate the names of the author and the illustrator, but also define the role of each in telling the story. Students describe the relationship between the illustrations and the story. Through guidance and support, students learn and practice these sophisticated skills, which, if learned well, provide them with beginning strategies for literacy analysis.

Reading Standards for Informational Text

One primary difference between the 1997 California English language arts standards and the CCSS is that the CCSS balance the reading of literature with informational text. As a result, there are more standards for reading informational texts in the CCSS than in the 1997 California English language arts standards. Both sets of standards ask students to locate the title of the book, use illustrations and context to make predictions, and ask and answer questions about essential elements of the text. The CCSS introduce students to a greater number of and more complex text-analysis skills. With prompting and support, students identify the main topic of a text, define the roles of the author and the illustrator, and describe the connection between two individuals, events, ideas, or pieces of information in a text. Students also identify the reasons an author gives to support points in a text. They identify basic similarities in and differences between two texts on the same topic (e.g., illustrations, descriptions, or procedures). This deeper level of analysis of informational text will support students as they read text in other subjects, such as history–social science and science.

Reading Standards in Foundational Skills

In kindergarten, the CCSS and the 1997 California English language arts standards are similar in that they both foster students' making sense of the alphabet and its role in reading—knowing letters of the alphabet and understanding the sound–symbol relationship. Comprehensive knowledge of the alphabetic principle is a powerful predictor of early reading success. By the end of kindergarten, students should be able to recognize that spoken words are represented in written language by specific sequences of letters, as well as name all uppercase and lowercase letters. Ongoing assessment and analysis of student progress is vital to identify students who are not making progress and need early phonological-awareness intervention. Assessment will also identify those students who have developed, or are successfully developing, phonological awareness and are ready to learn additional skills.

The 1997 California English language arts standards and the CCSS call for kindergarten students to learn the sound structure of language, which is the development of phonological awareness. Students develop *phonological awareness*, defined as the ability to hear and manipulate the sounds in spoken words and the understanding that spoken words and syllables are made up of sequences of speech sounds (called *phonemes*). For example, students pronounce, count, blend, and segment syllables in spoken words. Kindergarten students should participate in simple tasks in which they recognize and produce rhyming words and blend two to three phonemes into recognizable words.

Although early phonological awareness is oral, students should also have ample opportunities with print. Kindergarten students begin to work with words in three important ways: decoding or word-recognition skills, spelling, and writing. Decoding is of primary importance. Students demonstrate their knowledge of decoding by applying letter-sound correspondences and blending individual letter-sound correspondences to read whole words in both isolation and text. Kindergarten students use their phonetic knowledge by associating the long and short sounds with common spellings for the five major vowels while decoding words both in isolation and connected text. They can also read common high-frequency words by sight (e.g., *the, of, you, are*).

Although the 1997 California English language arts standards and the CCSS are very similar, the CCSS set an expectation that students will read texts, at the emergent-reader level, with purpose and understanding as they begin to develop fluency.

Writing

The connections between reading and writing are important in reinforcing essential skills. Kindergarten students learn to recognize, identify, comprehend, and write letters, words, and sentences. As students study the sound structure of language and learn how to read and write phonetically spelled words, they begin to use that knowledge to document their ideas in words. Kindergarteners write using real letters to spell out words phonetically. The 1997 California English language arts standards call for students to write about experiences, stories, people, objects, and events. The CCSS introduce kindergarten students to opinion pieces and informative/explanatory texts, in addition to narratives. Students use a combination of drawing, dictation, and writing in their classroom activities. They compose opinion pieces about a topic or a book. They compose informative/explanatory texts that supply information about a topic. In their narrative writing, students narrate a single event or several events, relate the events in the order in which they occurred, and express a reaction to the events. The CCSS also call for students to respond to questions and suggestions from peers and adults to strengthen their writing and to gather information from provided resources to answer a question. Students work collaboratively, with digital tools, to produce and publish writing and shared research and writing projects. Participation in these writing activities reinforces students' use of language conventions, new vocabulary, and analytical skills.

Speaking and Listening

Kindergarten instruction focuses on the development of receptive and expressive language. Both the 1997 California English language arts standards and the CCSS address basic oral communication skills. Kindergarten students learn about sentence structure and use that knowledge to produce clear, coherent sentences in order to share information and ideas. They speak audibly as they describe people, places, things, and events. They understand and can follow one- and two-step oral directions. The 1997 California English language arts standards also call for students to recite short poems, rhymes, and songs.

In contrast, the CCSS focus on collaborative conversations with multiple exchanges between students and peers and students and adults. The CCSS also emphasize the skills of asking and answering questions to confirm understanding of key details and seek clarification. Students participate in collaborative conversations with peers and adults in which they follow rules for discussion, such as listening to others and taking turns speaking. Conversations are centered on kindergarten texts and topics, which provide opportunities for students to practice new vocabulary, especially content-specific vocabulary. Students learn to ask and answer questions to seek help, get information, or clarify something they do not understand. Students also learn to use drawings, or other visual displays, to provide additional detail for their descriptions of people, places, things, and events.

Language

Knowledge of written and oral language conventions is essential for effective communication in both writing and speaking. In kindergarten, students begin to learn and use English conventions in their writing activities, when speaking, and when asking and answering questions about the stories and informational texts they read or hear. Both the CCSS and the 1997 California English language arts standards call for students to recognize and use complete, coherent sentences when speaking and to spell independently by using their phonetic ability and growing knowledge of letter names and of sounds of the alphabet. But the CCSS set additional expectations for learning the conventions of English. Students learn to use common, frequently occurring nouns and verbs and form regular plural nouns by adding /s/ or /es/ to the end of words. They use frequently occurring prepositions (e.g., *to*, *from*, *in*, *out*). Kindergarten students participate in shared language activities in which they produce and then expand complete sentences. They learn to write sentences that begin with a capital

letter and end with the correct punctuation. They capitalize the pronoun *I* in their writing. Learning and practicing English language conventions help kindergarten students prepare for writing independently in later grades.

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. Students in kindergarten are expected to identify and sort common words into basic categories (e.g., colors, shapes, foods). Students also use both general and specific language to describe events and common objects, which they do in both speaking and writing.

In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. The CCSS emphasize multiple-meaning words, word relationships, and nuances in word meanings. With guidance and support from adults, students acquire new words and phrases through conversations about grade-level topics, by reading and being read to, and by responding to text. Students learn strategies to determine the meaning of unknown words. For example, students learn to use frequently occurring inflections and affixes as clues to the meaning of unknown words. They identify new meanings for familiar words, demonstrate understanding of common verbs and adjectives by relating them to their opposites, and sort common objects into categories to gain a sense of the concepts the categories represent. Students also explore the richness of language, distinguishing—and acting out—shades of meaning among verbs that describe the same general action (e.g., *walk, march, strut, prance*), and recognizing the real-life connections between words and their use. Teachers should provide students with many opportunities to use their new vocabulary in conversations about kindergarten texts and topics and in their writing activities in all kindergarten subjects, not just English language arts and English-language development (ELD) instruction.

Extra Support for Struggling Readers

Reading is the key to success in all content areas. Kindergarten students who do not achieve success in phonological awareness, phonics, and word-recognition skills may experience academic difficulties. Early screening can identify specific areas of instructional need that can be addressed in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they will experience success. Instructional support for students should include:

- the use of assessment data for planning differentiated instruction;
- flexible grouping for differentiated instruction, with instructional resources specially designed for universal access;

- brief instructional sessions (significant gains in phonemic awareness are often made in 15–20 minutes of daily instruction over a period of 9–12 weeks);
- preteaching of phonemic-awareness skills and ample practice in listening, identifying, and producing the targeted sounds;
- instruction that progresses from the easier phonemic-awareness activities to the more difficult—from rhyming and sound matching to blending, segmenting, and manipulating sounds;
- systematic, explicit phonics instruction targeting mastery of letter-sound correspondences;
- additional opportunities in developing oral vocabulary, including academic language;
- diagnostic assessment and ongoing progress monitoring;
- opportunities to build background knowledge;
- reinforcement and extension of the regular classroom program.

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and in their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing. Students who enter kindergarten with little prior schooling and limited English skills must learn to read and write while learning English. They begin language arts instruction in English, with literacy instruction augmented by concurrent formal linguistic instruction in English (i.e., ELD).

Instructional support for students and suggested procedures to follow should:

- ensure that students have had sufficient opportunities through prior activities in phonemic awareness to hear, distinguish, and produce sounds being introduced. Phonological differences between English and the students' primary language should be identified, and students should be provided with additional exposure to and practice with the difficult sounds;
- provide students with additional systematic guidance and practice if they are unable to match all consonant and short-vowel sounds to appropriate letters;
- include brief, additional practice sessions for English learners who have difficulty in learning letter-sound correspondences. Students

should benefit from additional review and practice of particularly difficult letter sounds;

- ensure that students have had previous instruction or experiences (or both) with the words included in the instruction and that they understand their meaning;
- encourage English learners to take home age-appropriate materials (e.g., flash cards, decodable text, handouts) related to the teaching objective.

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. The publication is available at the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions Planning ELD Instruction: Kindergarten

Reading Standards for Literature	<ol style="list-style-type: none"> 4. Ask and answer questions about unknown words in a text. <u>(See grade K Language standards 4–6 for additional expectations.)</u> 5. Recognize common types of texts (e.g., storybooks, poems, <u>fantasy, realistic text</u>). 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. 9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.
Reading Standards for Informational Text	<ol style="list-style-type: none"> 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. 4. With prompting and support, ask and answer questions about unknown words in a text. <u>(See grade K Language standards 4–6 for additional expectations.)</u>

Note: California additions are in bold typeface and underlined.

Transition to Common Core State Standards with California Additions
Planning ELD Instruction: Kindergarten *(continued)*

Reading Standards for Informational Text <i>(continued)</i>	<ol style="list-style-type: none"> 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. 8. With prompting and support, identify the reasons an author gives to support points in a text. 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
Reading Standards: Foundational Skills	<ol style="list-style-type: none"> 4. Read emergent-reader texts with purpose and understanding.
Writing Standards	<ol style="list-style-type: none"> 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
Language Standards	<ol style="list-style-type: none"> 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <ol style="list-style-type: none"> d. Understand and use question words (interrogatives) (e.g., <i>who, what, where, when, why, how</i>). e. Use the most frequently occurring prepositions (e.g., <i>to, from, in, out, on, off, for, of, by, with</i>). 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. <ol style="list-style-type: none"> c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.

Transition to Common Core State Standards with California Additions
Planning ELD Instruction: Kindergarten *(continued)*

Language Standards <i>(continued)</i>	<ol style="list-style-type: none">4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>kindergarten reading and content</i>.<ol style="list-style-type: none">b. Use the most frequently occurring inflections and affixes (e.g., <i>-ed, -s, re-, un-, pre-, -ful, -less</i>) as a clue to the meaning of an unknown word.5. With guidance and support from adults, explore word relationships and nuances in word meanings.<ol style="list-style-type: none">a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.c. Identify real-life connections between words and their use (e.g., note places at school that are <i>colorful</i>).
---	---

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to the CCSS and was added by California to the multistate common core standards is in **boldface type and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These kindergarten CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the kindergarten 1997 California English language arts content standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Kindergarten

Reading Standards for Literature

Key Ideas and Details

1.	With prompting and support, ask and answer questions about key details in a text.
2.	With prompting and support, retell familiar stories, including key details.
3.	With prompting and support, identify characters, settings, and major events in a story.

Craft and Structure

4.	Ask and answer questions about unknown words in a text. (<u>See grade K Language standards 4–6 for additional expectations.</u>)
5.	Recognize common types of texts (e.g., storybooks, poems, <u>fantasy, realistic text</u>).
6.	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.

Integration of Knowledge and Ideas

7.	With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).
8.	(Not applicable to literature)
9.	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.

Range of Reading and Level of Text Complexity

- | | |
|-----|--|
| 10. | Actively engage in group reading activities with purpose and understanding.
a. Activate prior knowledge related to the information and events in texts.
b. Use illustrations and context to make predictions about text. |
|-----|--|

Reading Standards for Informational Text

Key Ideas and Details

- | | |
|----|---|
| 1. | With prompting and support, ask and answer questions about key details in a text. |
| 2. | With prompting and support, identify the main topic and retell key details of a text. |
| 3. | With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. |

Craft and Structure

- | | |
|----|--|
| 4. | With prompting and support, ask and answer questions about unknown words in a text. (See grade K Language standards 4–6 for additional expectations.) |
| 5. | Identify the front cover, back cover, and title page of a book. |
| 6. | Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. |

Integration of Knowledge and Ideas

- | | |
|----|---|
| 7. | With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). |
| 8. | With prompting and support, identify the reasons an author gives to support points in a text. |
| 9. | With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). |

Range of Reading and Level of Text Complexity

- | | |
|-----|--|
| 10. | Actively engage in group reading activities with purpose and understanding.
a. Activate prior knowledge related to the information and events in texts.
b. Use illustrations and context to make predictions about text. |
|-----|--|

Reading Standards: Foundational Skills

Print Concepts

- | | |
|----|--|
| 1. | Demonstrate understanding of the organization and basic features of print: <ol style="list-style-type: none"> a. Follow words from left to right, top to bottom, and page by page. b. Recognize that spoken words are represented in written language by specific sequences of letters. c. Understand that words are separated by spaces in print. d. Recognize and name all upper- and lowercase letters of the alphabet. |
|----|--|
-

Phonological Awareness

2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
 - a. Recognize and produce rhyming words.
 - b. Count, pronounce, blend, and segment syllables in spoken words.
 - c. Blend and segment onsets and rimes of single-syllable spoken words.
 - d. Blend two to three phonemes into recognizable words.**
 - e. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.* (This does not include CVCs ending with //, /r/, or /x/.)
 - f. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.

Phonics and Word Recognition

3. Know and apply grade-level phonics and word analysis skills in decoding words **both in isolation and in text.**
 - a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant.
 - b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.†
 - c. Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
 - d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

Fluency

4. Read emergent-reader texts with purpose and understanding.

Writing Standards

Text Types and Purposes

1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .).
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.

Production and Distribution of Writing

4. (Begins in grade **2**)
5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.

*Words, syllables, or phonemes written in /slashes/ refer to their pronunciation or phonology. Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.

†Identify which letters represent the five major vowels (Aa, Ee, Ii, Oo, and Uu) and know the long and short sound of each vowel. More complex long vowel graphemes and spellings are targeted in the grade 1 phonics standards.

Production and Distribution of Writing *(continued)*

- | | |
|----|--|
| 6. | With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. |
|----|--|

Research to Build and Present Knowledge

- | | |
|----|--|
| 7. | Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). |
| 8. | With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. |
| 9. | (Begins in grade 4) |

Range of Writing

- | | |
|-----|-----------------------------|
| 10. | (Begins in grade <u>2</u>) |
|-----|-----------------------------|

Speaking and Listening Standards**Comprehension and Collaboration**

- | | |
|----|---|
| 1. | Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. <ol style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). b. Continue a conversation through multiple exchanges. |
| 2. | Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. <p>a. Understand and follow one- and two-step oral directions.</p> |
| 3. | Ask and answer questions in order to seek help, get information, or clarify something that is not understood. |

Presentation of Knowledge and Ideas

- | | |
|----|--|
| 4. | Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. |
| 5. | Add drawings or other visual displays to descriptions as desired to provide additional detail. |
| 6. | Speak audibly and express thoughts, feelings, and ideas clearly. |

Language Standards

Conventions of Standard English

1.	<p>Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> a. Print many upper- and lowercase letters. b. Use frequently occurring nouns and verbs. c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., <i>dog, dogs; wish, wishes</i>). d. Understand and use question words (interrogatives) (e.g., <i>who, what, where, when, why, how</i>). e. Use the most frequently occurring prepositions (e.g., <i>to, from, in, out, on, off, for, of, by, with</i>). f. Produce and expand complete sentences in shared language activities.
2.	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> a. Capitalize the first word in a sentence and the pronoun I. b. Recognize and name end punctuation. c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.

Knowledge of Language

3.	(Begins in grade 2)
----	---------------------

Vocabulary Acquisition and Use

4.	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>kindergarten reading and content</i>.</p> <ol style="list-style-type: none"> a. Identify new meanings for familiar words and apply them accurately (e.g., knowing <i>duck</i> is a bird and learning the verb <i>to duck</i>). b. Use the most frequently occurring inflections and affixes (e.g., <i>-ed, -s, re-, un-, pre-, -ful, -less</i>) as a clue to the meaning of an unknown word.
5.	<p>With guidance and support from adults, explore word relationships and nuances in word meanings.</p> <ol style="list-style-type: none"> a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). c. Identify real-life connections between words and their use (e.g., note places at school that are <i>colorful</i>). d. Distinguish shades of meaning among verbs describing the same general action (e.g., <i>walk, march, strut, prance</i>) by acting out the meanings.
6.	<p>Use words and phrases acquired through conversations, reading and being read to, and responding to texts.</p>

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be gradually implemented over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for kindergarten are Counting and Cardinality, Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s kindergarten teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for kindergarten mathematics, including some highlights of how the kindergarten curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of some mathematical concepts for entering kindergarten students and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the kindergarten CCSS for mathematics can be found at the end of this section. A complete list of the 1997 California mathematics standards for kindergarten is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Kindergarten Students Should Know

Kindergarten is a critical time for children. Students entering kindergarten may be four to six years old and bring varied life experiences, social skills, and characteristics of physical and intellectual development. Participation in a quality preschool program is one of the best ways to prepare a child for success in kindergarten and beyond.

The *California Preschool Learning Foundations, Volume 1* (California Department of Education 2008) describes the knowledge, skills, and competencies that children typically attain at around 48 and 60 months of age when they participate in a high-quality preschool program and receive adequate support. Such preschool programs promote student learning in mathematics by focusing on the mathematics in a child's everyday environment. For example, preschool children are introduced to concepts and relationships of numbers and quantities in their everyday environment as they recite the numbers in order to 10, count up to five objects, or visually compare two groups of objects and communicate if they are the "same" or "more." Children learn about measurement by comparing the length, weight, or capacity of objects by using words such as *bigger*, *longer*, *heavier*, or *taller*. Children learn those important foundations of mathematics while engaging in imaginative play, exploring the environment and materials, making discoveries, or interacting with teachers or other adults.

Students are better prepared if they enter kindergarten with some background in the academic language of mathematics (the language of tests and texts) and an understanding of the concepts represented by such language. Students ready for school should have an understanding of mathematical attributes, such as color, shape, and size; abstract concepts, such as *some*, *all*, and *none*; and ordinal concepts, such as *before*, *after*, *yesterday*, and *tomorrow*. In addition, students who know the concepts in their native language but do not yet know the English words for the concepts will need extra support from teachers.

Fortunately, kindergarten provides many opportunities to support the development of critical mathematics vocabulary and concepts during both instructional time and playtime. For example, students learn to take turns during a game or line up for recess (first, second, third), count off in a line (one, two, three), or learn to match the number of balls available for recess to the same number of children (matching sets).

What Students Learn in Kindergarten

In kindergarten, students are introduced to the relationship between numbers and quantities and build a foundation for place value as they count, represent, and compare whole numbers, initially with sets of objects. Students also describe and model objects in their environment by using simple geometric shapes and vocabulary.

Counting and Cardinality

Both the 1997 California mathematics standards and the CCSS for kindergarten focus on understanding the relationship between numbers and quantities. Kindergarteners learn the number names as they count (to 100 by 1s and 10s) and write number names (from 0 to 20). Students learn that each successive number name refers to a quantity that is one larger as they count objects and say the corresponding number names. Kindergarteners count objects (as many as 20) to answer “how many” questions and group and compare sets of concrete items (up to 10 objects in each group) to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

At this age, some children may have difficulty with the coordination needed to write numerals (from 0 to 20) as called for in the standards. To help develop their writing skills, students may copy a numeral many times, then write the numeral with some prompts (e.g., dots or arrows), and finally write it from memory as the teacher says the number. A multisensory approach is important at this age, and students may need to be encouraged to be unconcerned about the quality of their handwriting as they learn to write numerals.

With full implementation of the CCSS, kindergarteners will extend counting to 100 by ones and tens (a first-grade topic in the 1997 California mathematics standards).

Operations and Algebraic Thinking

Both the 1997 California mathematics standards and the CCSS introduce simple addition and subtraction in kindergarten. Kindergarteners use a variety of approaches (e.g., use of objects, fingers, drawings, sounds, verbal explanations, or equations) to represent addition and subtraction (putting together and taking apart) and to solve problems (within 10). They decompose numbers (less than or equal to 10) into various pairs (e.g., $5 = 2 + 3$ and $5 = 4 + 1$) and find the missing number that makes 10 (for any number from 1 to 9). Kindergarteners will develop fluency with addition and subtraction (within 5 items).

Number and Operations in Base Ten

The CCSS introduce kindergarten students to the foundations for place value. Students use objects or drawings to compose and decompose numbers (from 11 to 19) into ten ones and some further ones (e.g., $18 = 10 + 8$). In the 1997 California mathematics standards, the concept of place value is covered in a similar way, as kindergarteners use estimation strategies in computation and problem solving for numbers in the ones and tens places.

Measurement and Data

Both the 1997 California mathematics standards and the CCSS provide opportunities for students to develop their measurement and classifying skills. Kindergarteners directly compare objects with measurable attributes (such as length or weight) to see which object is longer, shorter, lighter, heavier, or in general have “more of”/“less of” an attribute. Students also classify objects into categories and sort the categories by count.

In both the 1997 California mathematics standards and the CCSS, kindergarten students study the concepts of time and the tools that measure time (e.g., clocks, calendars). Students will need repeated practice to memorize the sequence of the days of the week and months of the year. A firm understanding of these items of the calendar will help students avoid difficulty with other important concepts of time, such as “before” and “after.”

With full implementation of the CCSS, skills associated with extending simple patterns and collecting and reporting data—part of the 1997 California mathematics standards at kindergarten—will be introduced at grade one.

Geometry

In both the 1997 California mathematics standards and the CCSS, students describe objects in the environment using the names of shapes (e.g., squares, circles, spheres) and identify shapes as two-dimensional (flat) and three-dimensional (solid).

Full implementation of the CCSS will further develop geometry skills as kindergarten students describe the relative positions of objects (e.g., *above* or *behind*), which is a topic in the 1997 California mathematics standards at grade one. The CCSS call for kindergarteners to “model shapes in the world” by building and drawing shapes and also to compose simple shapes to form larger shapes (e.g., triangles to form rectangles). The concept of putting shapes together and taking them apart is a topic in the 1997 California mathematics standards at grade two.

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as

semantics (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first*, *second*, *last*, *before*, *every*, *each*, *more*, and *equal*. Students may be unfamiliar with *sum*, *difference*, *solve*, *length*, and *value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the face of a clock).
- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than*, *less than*, *most often*, *least often*), or position words (*behind*, *below*, *in front of*, *to the right of*, *to the left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Transition to the Common Core State Standards

The following chart highlights a few topics that will continue to be addressed at the same grade level, and some changes to be considered, as California progresses toward full implementation of the kindergarten CCSS for mathematics. The chart includes the column heading “Overview of Standards.” For the 1997 California mathematics standards, this information is from the “strands” (e.g., Number Sense) and the “overarching” standards (e.g., Number Sense 1.0) at kindergarten. For the CCSS, the column lists the “domains” (e.g., Operations and Algebraic Thinking) and the “cluster headings” for the standards (e.g., Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from) at kindergarten.

The chart does not, and is not intended to, illustrate all of the differences between the two sets of standards—it is merely a beginning point for more in-depth discussion by teachers and other educators on how instruction may change.

The transition chart is followed by a complete set of the CCSS, with California additions, for kindergarten and then a table of the CCSS domains for kindergarten through grade six.

A Quick Look: Transition to the Common Core State Standards

Mathematics: Kindergarten

Overview of Standards		CCSS	Highlights
<p>1997 California Mathematics Standards*</p> <p>Algebra and Functions</p> <ul style="list-style-type: none"> Students sort and classify objects. <p>Number Sense</p> <ul style="list-style-type: none"> Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different situations regardless of its position or arrangement). Students understand and describe simple additions and subtractions. Students use estimation strategies in computation and problem solving that involve numbers that use the ones and tens places. 	<p>Counting and Cardinality</p> <ul style="list-style-type: none"> Know number names and the count sequence. Count to tell the number of objects. Compare numbers. 	<ul style="list-style-type: none"> Introduce counting to 100 by ones and tens (counting by from 30 to 100 and introduction to skip-counting by tens moves from grade one to kindergarten in the CCSS). ▼ ** Represent a number of objects with a written numeral 0–20. Count objects to understand the relationship between numbers and quantities and to answer “how many” questions for numbers 1–20. Identify if the number of objects in one group is greater than, less than, or equal to the number of objects in another (for groups with up to 10 objects). 	<ul style="list-style-type: none"> Focus on representing addition and subtraction in various ways such as using objects, fingers, drawings, verbal explanations, or equations. Add and subtract and solve addition and subtraction word problems for numbers within 10, by using objects or drawing. Fluently add and subtract within 5. Decompose numbers (less than or equal to 10) into pairs.
	<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. 	<p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> Work with numbers 11–19 to gain foundations for place value. 	<ul style="list-style-type: none"> Introduce composing and decomposing numbers from 11 to 19 into tens and ones.

*The 1997 California mathematics standards will continue to be assessed through the STAR system (in grades two through eleven) until at least 2014.

**The ▼ symbol indicates that all or part of a concept in the 1997 California standards has moved to a lower grade in the CCSS; the ▲ symbol indicates movement to a higher grade. Listings without a symbol indicate that a concept will continue to be taught at the current grade level.

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Kindergarten

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Measurement and Geometry</p> <ul style="list-style-type: none"> Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by referring to those properties. Students identify common objects in their environment and describe the geometric features. <p>Statistics, Data Analysis, and Probability</p> <ul style="list-style-type: none"> Students collect information about objects and events in their environment. 	<p>Measurement and Data</p> <ul style="list-style-type: none"> Describe and compare measurable attributes. Classify objects and count the number of objects in categories. 	<ul style="list-style-type: none"> Directly compare two objects and describe the differences based on a measurable attribute in common (e.g., height). Classify objects into given categories and sort by count. Understand concepts of time (e.g., morning, today, week) and tools that measure time (e.g., clock, calendar). Name the days of the week and identify time of everyday events (e.g., lunch time is 12 o'clock). Introduce collecting data and recording results (moves from kindergarten to grade one in the CCSS). ▲ Introduce simple patterns (moves from kindergarten to grade one in the CCSS). ▲
	<p>Geometry</p> <ul style="list-style-type: none"> Identify and describe shapes. Analyze, compare, create, and compose shapes. 	<ul style="list-style-type: none"> Correctly name and identify shapes as two-dimensional (flat) and three-dimensional (solid). Analyze and compare two- and three-dimensional shapes, using informal language. Model shapes by building and drawing shapes (a new focus in the CCSS). Compose simple shapes to form larger shapes, such as triangles to form rectangles (putting shapes together moves from grade two to kindergarten in the CCSS). ▼ Describe the relative positions of objects, such as above or behind (moves from grade one to kindergarten in the CCSS). ▼

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Kindergarten

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Mathematical Reasoning</p> <ul style="list-style-type: none"> • Students make decisions about how to set up a problem. • Students solve problems in reasonable ways and justify their reasoning. 	<p>Standards for Mathematical Practice</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> • The CCSS include Standards for Mathematical Content (different at each grade) and Standards for Mathematical Practice (recurring throughout the grades). • To master the grade-level content, students will need to rely on their understanding of a concept and not only on procedures. Standards for Mathematical Practice define how students develop mathematical understanding as they make sense of a problem, reason abstractly, construct arguments, model with mathematics, use tools strategically, attend to precision, and look for structure and repeated reasoning. • Standards for Mathematical Content that set an expectation of “understanding” are potential points of intersections between these standards and the Standards for Mathematical Practice. • Standards for Mathematical Practice are similar to the previous 1997 California Mathematical Reasoning standards and should be evident throughout future curricula, assessments, and professional development.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These kindergarten CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the 1997 California mathematics standards for kindergarten is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Kindergarten

Counting and Cardinality (K.CC)

Know number names and the count sequence.

1.	Count to 100 by ones and by tens.
2.	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3.	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Count to tell the number of objects.

4.	Understand the relationship between numbers and quantities; connect counting to cardinality. <ol style="list-style-type: none"> When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. Understand that each successive number name refers to a quantity that is one larger.
5.	Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1 to 20, count out that many objects.

Compare numbers.

6.	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. ¹
7.	Compare two numbers between 1 and 10 presented as written numerals.

1. Include groups with up to ten objects.

Operations and Algebraic Thinking (K.OA)

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1.	Represent addition and subtraction with objects, fingers, mental images, drawings, ² sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2.	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3.	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
4.	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5.	Fluently add and subtract within 5.

Number and Operations in Base Ten (K.NBT)

Work with numbers 11–19 to gain foundations for place value.

1.	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
----	---

Measurement and Data (K.MD)

Describe and compare measurable attributes.

1.	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2.	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i>

Classify objects and count the number of objects in each category.

3.	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. ³
----	--

2. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

3. Limit category counts to be less than or equal to 10.

Classify objects and count the number of objects in each category. *(continued)*

- | | |
|-----------|---|
| 4. | <u>Demonstrate an understanding of concepts of time (e.g., morning, afternoon, evening, today, yesterday, tomorrow, week, year) and tools that measure time (e.g., clock, calendar). (CA-Standard MG 1.2)</u>
<u>a. Name the days of the week. (CA-Standard MG 1.3)</u>
<u>b. Identify the time (to the nearest hour) of everyday events (e.g., lunch time is 12 o'clock, bedtime is 8 o'clock at night). (CA-Standard MG 1.4)</u> |
|-----------|---|

Geometry (K.G)

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

- | | |
|----|---|
| 1. | Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> . |
| 2. | Correctly name shapes regardless of their orientations or overall size. |
| 3. | Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). |

Analyze, compare, create, and compose shapes.

- | | |
|----|--|
| 4. | Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). |
| 5. | Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. |
| 6. | Compose simple shapes to form larger shapes. <i>For example, "Can you join these two triangles with full sides touching to make a rectangle?"</i> |

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

First-Grade Curriculum



What will my child learn in English language arts and mathematics in first grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance first-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of first grade. Each section includes a brief overview of what the student should have learned before entering first grade, followed by a description of the first-grade standards. Each subject concludes with a list of the first-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

For students to become lifelong readers and writers, it is essential that they learn early reading and language skills through a strong, integrated instructional process. Becoming a fluent and skillful reader requires extensive engagement with the English language, including understanding the sounds and symbols that make up language, hearing and talking about stories and events, and connecting words with ideas to express in writing and speaking.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of this school year. In 2010, California adopted new standards in English language arts: the

CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into the following strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus on more informational text, participating in shared research writing projects, vocabulary acquisition and use, and text-analysis skills for reading comprehension.

This section provides an overview of the new CCSS for first-grade English language arts. It includes a review of the important English language arts skills and concepts from kindergarten (prerequisite skills) and guidance to ensure success for English learners. A complete list of the first-grade CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the first-grade 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What First-Grade Students Should Know

A primary focus of language arts instruction in kindergarten was making sense of the alphabet and its role in reading. Students produced the most frequent sounds for each consonant and isolated and pronounced the initial, medial vowel, and final sounds in consonant-vowel-consonant words. They blended two or three phonemes into recognizable words, read high-frequency words by sight, and read emergent-reader texts with purpose and understanding.

Students used a variety of reading comprehension strategies, including the use of pictures and context to make predictions, retell stories, answer and ask questions, and describe connections between events, ideas, and pieces of information in a text. They compared and contrasted similar stories and texts, identified key details in both narrative and informational texts, and engaged in group reading activities.

Students printed letters and words, phonetically spelled the beginning of words, and used frequently occurring verbs and nouns, including regular plural nouns. They composed opinion pieces, informative/explanatory

texts, and narratives by using a combination of drawing, dictation, and writing. Students also engaged in collaborative conversations with peers and adults about kindergarten topics and learned how to follow rules, such as listening to others and taking turns speaking about topics.

What Students Learn in First Grade

First-grade students extend their knowledge of language arts in significant and exciting ways, learning skills that enable them to read and write more independently. By the end of first grade, students should read proficiently at grade level and have the ability to decode and recognize increasingly complex words accurately and automatically. Students increase their academic and content-specific vocabulary by reading a variety of literature and informational text. Students further develop their communication skills as they engage with peers and adults in collaborative conversations that provide additional opportunities to express their ideas and experiences. As first-grade students learn to write for different purposes, they apply their growing knowledge of language structures and conventions.

In order to master the first-grade English language arts content, students need to practice decoding skills. To develop comprehension skills, students need exposure to a variety of high-quality literature and informational texts.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

In first grade, some of the CCSS for reading literature emphasize verbal interaction between student and teacher in order to develop the student's comprehension of literature. Students use key details when talking or writing about a story or book and emphasize their use to describe characters, settings, and major events. The 1997 California English language arts standards for literary response and analysis focus on the student's ability to identify and describe a story's beginning, middle, and end, as well as the plot, setting, and characters. The new CCSS continue this development of structural awareness but go further by asking students to demonstrate an understanding of a central message or lesson. Students also learn to differentiate between types of text: those that provide information and those that appeal to the senses and suggest feelings. The CCSS also set the new expectation that students will be able to compare and contrast the adventures and experiences of story characters. This early introduction to literary analysis provides a strong foundation in critical thinking that students will develop throughout their academic careers.

Reading Standards for Informational Text

Beginning in kindergarten, the CCSS balance the reading of informational text with the reading of literature. First-grade students learn to read appropriately complex informational text—and to read it independently and proficiently. As students participate in English language arts activities related to informational text, they make connections to other content areas. Content standards in mathematics, history–social science, and science are reinforced as students read informational text that develops concepts and academic vocabulary in those content areas.

Both the CCSS and the 1997 California English language arts standards provide students with opportunities to learn key comprehension strategies through teacher modeling and extensive guided practice. For example, students relate prior knowledge to textual information, confirm predictions by identifying supporting text, use context to resolve ambiguities about the meaning of words and sentences, and identify text that uses sequence or other logical order.

However, the CCSS go further by setting the expectation that students know and use various text structures and features (table of contents, glossaries, electronic menus, and icons) to locate key facts or information in a text. Students also learn to identify the main topic and retell key details of a text; to compare and contrast two texts on the same topic; and to describe the connection between two individuals, events, ideas, or pieces of information in a text.

Reading Standards in Foundational Skills

The CCSS and the 1997 California English language arts standards are similar in that both foster student understanding and working knowledge of concepts of print, the alphabetic principle, and other foundational skills and concepts for reading. In both sets of standards, students develop phonological awareness, basic decoding, and word-recognition skills. Concepts of print are augmented in the CCSS to include organization and basic features of text. Students should read grade-level text with accuracy, at an appropriate rate, and with expression that resembles natural speech. This fluency provides a bridge to reading comprehension.

First-grade students recognize the explicit relationship between the words they hear and the phonemic structure of language. Students become not only phonemically aware but also phonemically proficient in identifying, producing, and manipulating sounds. Students should be provided with systematic and extensive instruction and practice in:

- analyzing words at the phoneme level;
- producing sounds;
- adding, deleting, and changing selected sounds;
- manipulating increasingly longer words (three to four phonemes).

Students learn decoding skills by systematically progressing from simple word types (e.g., consonant-vowel-consonant), word lengths (e.g., number of phonemes), and word complexity (e.g., phonemes in the word, position of blends, stop sounds) to more complex words. At each fundamental stage (e.g., letter-sound correspondences, blending, reading whole words), students practice skills that have been modeled for them. Initially, students read controlled decodable text, which serves as an intermediary step until they are able to read grade-level literature and informational text.

The CCSS extend the 1997 California English language arts standards by calling for students to use the knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. Students decode two-syllable words by breaking the words into syllables. Students also apply phonics and word-analysis skills to decode words both in isolation and in grade-level text.

Writing

The CCSS for first-grade writing, like the 1997 California standards, combine the important skills of writing with a focus, forming and documenting ideas, responding to fiction and nonfiction works, and recognizing the role of organization and text structure in different writing applications. Students begin to understand that writing is a process and learn to write brief narratives and descriptions of objects, persons, places, or events. Writing activities for students use good models as examples and encourage talking and writing about books and events.

The CCSS go beyond the 1997 California English language arts standards to include additional sophisticated skills and instructional practices in writing. Students write informative/explanatory texts and opinion pieces in addition to narrative writing pieces. To meet grade-level expectations for opinion pieces, students provide supporting reasons and facts and a sense of closure. Students write narratives that recount two or more sequenced events and use words to signal event order. They work collaboratively with peers and participate in shared research and writing projects, which include the use of digital tools to edit and publish their work.

Speaking and Listening

In first grade, the CCSS for speaking and listening focus on the skills students need to participate in collaborative conversations with peers and adults about grade-level topics and texts. These topic- and text-based conversations are important to students' speaking and listening skills. Collaborative conversations provide students with opportunities to use new vocabulary and academic language.

The basic skills for conversations that students learn under the 1997 California English language arts standards are to listen attentively, ask questions for clarification and understanding, and stay on topic when speaking. The CCSS further develop these basic skills as students engage in collaborative conversations with diverse partners, building on others' comments through multiple exchanges on a topic or text.

Students learn to ask and answer questions for different purposes (e.g., to gather additional information or to clarify issues), and in different situations, such as when a text is read aloud or when information is provided by a speaker or presented through other media. Students continue to memorize and recite poems, rhymes, and songs with expression and to give, restate, and follow simple two-step directions.

In both the 1997 California English language arts standards and the CCSS, students describe people, places, things, and events. The CCSS introduce students to the use of drawings and other visual displays as additions to their descriptions and to clarify their ideas, thoughts, and feelings.

Language

Students in first grade are introduced to the basic elements of English grammar and usage for spoken and written language. Speaking and writing in complete sentences are a focus under the 1997 California English language arts standards, and specific attention is given to singular and plural subjects and verbs. The use of complete sentences to communicate, emphasized in the 1997 California English language arts standards, continues in the CCSS for both writing and speaking. The CCSS maintain students' focus on subject-verb agreement while extending instruction on the use of pronouns to include proper, personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their, anyone; everything*).

In addition to learning the four types of ending punctuation, students under the CCSS are expected to name and recognize the four types of sentences: declarative, interrogative, exclamatory, and imperative. Instruction in language conventions such as capitalization continues, with the addition of capitalization rules for dates and names. In writing, students learn to use high-frequency words and also learn to recognize common spelling patterns and frequently used irregular words. Specific grammar elements and language conventions taught in first grade help form a base for future grades to build knowledge of both spoken and written formal English.

To encourage the use of academic language, the 1997 California English language arts standards call for students to be familiar with categories of words and concepts. The CCSS call for sophisticated vocabulary instruction to help students gain facility with an array of strategies and learn about word relationships and nuances in word meanings. Rather than learning

vocabulary words that may not be related to grade-level texts and topics, students learn techniques to help them gain meaning of unknown words in their reading. Students' vocabularies expand through increased exposure to academic language and the use of high-frequency, grade-appropriate words in speaking and listening and in writing.

Students gain independence in making meaning of unknown words by using scaffolding strategies introduced in the CCSS. Some of these concepts appear in second and third grade in the 1997 California English language arts standards. Other vocabulary skills and concepts that students learn under the CCSS include simple roots and affixes, using context clues at the sentence level, defining words by category or key attributes, describing real-life connections between words and their use, attention to verbs and adjectives, and the use of high-frequency conjunctions (e.g., *because*, *since*) to flag simple relationships. In addition, students accrue a broader vocabulary by responding to text they have read or heard read aloud.

Extra Support for Struggling Readers

Reading is the key to success in all content areas. First-grade students who do not achieve success in phonological awareness, phonics, and word-recognition skills may experience academic difficulties. Early screening can identify specific areas of instructional needs that can be addressed in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they will experience success. Instructional support for students should include:

- flexible grouping for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- extra instructional support in phonological awareness for those experiencing difficulties;
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- opportunities in vocabulary instruction within context, including academic language;
- opportunities to build background knowledge;
- reinforcement and extension of the regular classroom program.

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and in their primary

language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing. Students who enter first grade with little prior schooling and limited English skills must learn to read and write while learning English. They begin language arts instruction in English, with literacy instruction augmented by concurrent formal linguistic instruction in English (i.e., ELD).

Knowledge of letter-sound correspondences and phonological awareness of the sounds should be included in the lesson before teaching English learners to blend sounds. Additional phonological and letter-sound instruction is provided as needed. Modeling and practice can be provided by the teacher or by native English-speaking peers.

After assessment, English learners should be provided with instruction on new letter sounds and blending or on new word types. Such instruction will enable them to catch up with their classmates and accomplish lesson objectives.

The following suggestions provide support to English learners:

- Find out whether students have had previous instruction or experiences (or both) with the words included in the instruction and ensure they understand their meaning.
- Assess what knowledge is assumed before each unit of instruction and provide any preteaching of key concepts.
- Have English learners draw on literary skills in their first language to use in English and build on the knowledge of reading skills acquired in their first language in English letter-sound correspondences.
- Include explicit models of the letter-sound correspondences that students are expected to know, and conduct correction in a way that encourages students to keep trying, helping them to see the progress they have made.
- Provide students with scaffolds to learn grammar skills and meet writing expectations.

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available at the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time and appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: First Grade

Reading Standards for Literature	<ol style="list-style-type: none"> 4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. (<u>See grade 1 Language standards 4–6 for additional expectations.</u>) 5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. 6. Identify who is telling the story at various points in a text.
Reading Standards for Informational Text	<ol style="list-style-type: none"> 6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. 7. Use the illustrations and details in a text to describe its key ideas. 9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
Writing Standards	<ol style="list-style-type: none"> 1. Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
Speaking and Listening Standards	<ol style="list-style-type: none"> 3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
Language Standards	<ol style="list-style-type: none"> 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <ol style="list-style-type: none"> d. Use personal (<u>subject, object</u>), possessive, and indefinite pronouns (e.g., <i>I, me, my; they, them, their, anyone, everything</i>). f. Use frequently occurring adjectives. g. Use frequently occurring conjunctions (e.g., <i>and, but, or, so, because</i>). h. Use determiners (e.g., articles, demonstratives). i. Use frequently occurring prepositions (e.g., <i>during, beyond, toward</i>).

Note: California additions are in bold typeface and underlined.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to the CCSS and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These grade-one CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-one 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade One

Reading Standards for Literature	
Key Ideas and Details	
1.	Ask and answer questions about key details in a text.
2.	Retell stories, including key details, and demonstrate understanding of the central message or lesson.
3.	Describe characters, settings, and major events in a story, using key details.
Craft and Structure	
4.	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. <u>(See grade 1 Language standards 4–6 for additional expectations.)</u>
5.	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
6.	Identify who is telling the story at various points in a text.
Integration of Knowledge and Ideas	
7.	Use illustrations and details in a story to describe its characters, setting, or events.
8.	(Not applicable to literature)
9.	Compare and contrast the adventures and experiences of characters in stories.
Range of Reading and Level of Text Complexity	
10.	With prompting and support, read prose and poetry of appropriate complexity for grade 1. <u>a. Activate prior knowledge related to the information and events in a text.</u> <u>b. Confirm predictions about what will happen next in a text.</u>

Reading Standards for Informational Text

Key Ideas and Details

1.	Ask and answer questions about key details in a text.
2.	Identify the main topic and retell key details of a text.
3.	Describe the connection between two individuals, events, ideas, or pieces of information in a text.

Craft and Structure

4.	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. (See grade 1 Language standards 4–6 for additional expectations.)
5.	Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
6.	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

Integration of Knowledge and Ideas

7.	Use the illustrations and details in a text to describe its key ideas.
8.	Identify the reasons an author gives to support points in a text.
9.	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

Range of Reading and Level of Text Complexity

10.	With prompting and support, read informational texts appropriately complex for grade 1. a. Activate prior knowledge related to the information and events in a text. b. Confirm predictions about what will happen next in a text.
-----	--

Reading Standards: Foundational Skills

Print Concepts

1.	Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
----	--

Phonological Awareness

2.	Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
----	--

Phonological Awareness <i>(continued)</i>	
	<ul style="list-style-type: none"> c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

Phonics and Word Recognition	
3.	<p>Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text.</p> <ul style="list-style-type: none"> a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.

Fluency	
4.	<p>Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

Text Types and Purposes	
1.	Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
2.	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
3.	Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

Production and Distribution of Writing	
4.	(Begins in grade 2)
5.	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
6.	With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

7.	Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).
8.	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
9.	(Begins in grade 4)

Range of Writing

10.	(Begins in grade 2).
-----	------------------------------

Speaking and Listening Standards

Comprehension and Collaboration

1.	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. <ol style="list-style-type: none"> Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). Build on others’ talk in conversations by responding to the comments of others through multiple exchanges. Ask questions to clear up any confusion about the topics and texts under discussion.
2.	Ask and answer questions about key details in a text read aloud or information presented orally or through other media. <p>a. Give, restate, and follow simple two-step directions.</p>
3.	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Presentation of Knowledge and Ideas

4.	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. <p>a. Memorize and recite poems, rhymes, and songs with expression.</p>
5.	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
6.	Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 for specific expectations.)

Language Standards

Conventions of Standard English

1.	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <ol style="list-style-type: none"> Print all upper- and lowercase letters. Use common, proper, and possessive nouns. Use singular and plural nouns with matching verbs in basic sentences (e.g., <i>He hops; We hop</i>). Use personal (subject, object), possessive, and indefinite pronouns (e.g., <i>I, me, my; they, them, their, anyone, everything</i>).
----	--

Conventions of Standard English *(continued)*

	<p>e. Use verbs to convey a sense of past, present, and future (e.g., <i>Yesterday I walked home; Today I walk home; Tomorrow I will walk home</i>).</p> <p>f. Use frequently occurring adjectives.</p> <p>g. Use frequently occurring conjunctions (e.g., <i>and, but, or, so, because</i>).</p> <p>h. Use determiners (e.g., articles, demonstratives).</p> <p>i. Use frequently occurring prepositions (e.g., <i>during, beyond, toward</i>).</p> <p>j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.</p>
2.	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Capitalize dates and names of people.</p> <p>b. Use end punctuation for sentences.</p> <p>c. Use commas in dates and to separate single words in a series.</p> <p>d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.</p> <p>e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.</p>

Knowledge of Language

- | | |
|----|---------------------|
| 3. | (Begins in grade 2) |
|----|---------------------|

Vocabulary Acquisition and Use

4.	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 1 reading and content</i>, choosing flexibly from an array of strategies.</p> <p>a. Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p>b. Use frequently occurring affixes as a clue to the meaning of a word.</p> <p>c. Identify frequently occurring root words (e.g., <i>look</i>) and their inflectional forms (e.g., <i>looks, looked, looking</i>).</p>
5.	<p>With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <p>a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</p> <p>b. Define words by category and by one or more key attributes (e.g., a <i>duck</i> is a bird that swims; a <i>tiger</i> is a large cat with stripes).</p> <p>c. Identify real-life connections between words and their use (e.g., note places at home that are <i>cozy</i>).</p> <p>d. Distinguish shades of meaning among verbs differing in manner (e.g., <i>look, peek, glance, stare, glare, scowl</i>) and adjectives differing in intensity (e.g., <i>large, gigantic</i>) by defining or choosing them or by acting out the meanings.</p>
6.	<p>Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., <i>I named my hamster Nibbles because she nibbles too much because she likes that</i>).</p>

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for first grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s first-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for first-grade mathematics, including some highlights of how the first-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of the important mathematical concepts and skills from kindergarten (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the first-grade CCSS for mathematics can be found at the end of this section. A complete list of the first-grade 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What First-Grade Students Should Know

When entering first grade, students who have met the kindergarten CCSS for mathematics understand the relationship between numbers and quantities and have built a foundation for understanding place value. They can group and compare sets of concrete items and recognize whether there are more, fewer, or an equal number of items in different sets. They learned to count to 100 by ones and tens and can count forward starting from any number within this range.

Students can write numbers from 0 to 20 and can represent a number of objects with a written numeral. They are able to recognize, represent, name, and order a number of objects and have developed a clear sense of what a number is by using concrete objects to determine the answers to addition and subtraction. They can decompose the number 10 into pairs in several ways, using drawings or equations to record these decompositions, and can compose and decompose numbers from 11 to 19 into tens and ones. They added and subtracted within 5 fluently.

Students entering first grade can identify and describe both two- and three-dimensional geometric shapes as well as their relative positions. They can compose simple shapes to make larger shapes and analyze and compare shapes by parts and attributes.

What Students Learn in First Grade

First-grade students will extend their knowledge of mathematics as they learn to add and subtract within 20, develop an understanding of whole numbers and place value within 100, measure and order objects by length, interpret data (with up to three categories), work with shapes to compose new shapes, and partition shapes to create “equal shares” (decompose shapes).

Operations and Algebraic Thinking

Both the 1997 California mathematics standards and the CCSS emphasize addition and subtraction of small numbers at first grade. First-grade students develop arithmetic skills as they use addition and subtraction (within 20) to solve word problems and become fluent with these operations (within 10). Students use objects, drawings, and equations with symbols for unknowns to write and solve addition problems within 20 (with three whole numbers). Students work with addition and subtraction equations and demonstrate the meaning of an equal sign as they determine whether an equation is true or false. The CCSS foster understanding as students employ a variety of strategies (e.g., counting on, building or decomposing to 10, applying knowledge of the inverse relationship

between addition and subtraction) and apply the properties of operations (e.g., commutative and associative properties) to addition and subtraction tasks.

With implementation of the CCSS, instruction on the value of coins, a first-grade topic in the 1997 California mathematics standards, will now be introduced in grade two.

Number and Operations in Base Ten

Both the 1997 California mathematics standards and the CCSS focus on whole numbers and place value at first grade. Students use concrete models to deepen their understanding about place value and know that the digits of a two-digit number represent amounts of tens and ones. They add two-digit and one-digit numbers (or a two-digit number and a multiple of ten) within 100 and know that to add two-digit numbers, tens are added to tens, ones are added to ones, and that during the process sometimes a new ten is composed. They compare and order two-digit whole numbers by using the symbols for less than, equal to, or greater than ($<$, $=$, $>$).

First-graders expand their understanding of addition and subtraction by using mental math to find 10 more or 10 less than a two-digit number. They also subtract multiples of 10 from multiples of 10 (for positive or zero differences and numbers in the range 10–90). In the 1997 California mathematics standards, addition and subtraction at first grade focused on problems with one- and two-digit numbers (e.g., $5 + 58 = \underline{\quad}$), and the sum of three one-digit numbers.

With full implementation of the CCSS, entering first-graders will already know how to count to 100 by ones and tens, a first-grade topic in the 1997 standards. First-graders will extend counting by ones from 100 to 120 and will read and write whole numbers to 120. Skip-counting by 2s and 5s (a first-grade topic in the 1997 standards, for numbers to 100) will be introduced at second grade for numbers to 1,000.

Measurement and Data

First-graders develop their measurement skills as they compare the lengths of three objects by using direct comparison or a nonstandard unit. By the end of first grade, students understand that the measured length of an object can be represented by the number of length units that span it with no gaps or overlaps. They read and record time to the nearest half hour on both analog and digital clocks. Students organize, represent, and interpret data with up to three categories and evaluate and discuss collected data points.

Both the 1997 California mathematics standards and the CCSS have first-graders describe, extend, and explain ways to get to a next element in simple repeating patterns (e.g., rhythmic, numeric, color, and shape). As students work with patterns in sorting, they learn to reason about the most likely next term.

With implementation of the CCSS, the concept of weight (a first-grade topic in the 1997 California mathematics standards) will be introduced in kindergarten but not studied in depth until grade three, when volume is also introduced. Also, the use of picture graphs and bar graphs to represent data will be covered in grade two, a first-grade topic in the 1997 California mathematics standards.

Geometry

In both the 1997 California mathematics standards and the CCSS, first-graders study the attributes of geometric shapes. The CCSS emphasize differences between defining (e.g., triangles are closed and three-sided) and nondefining (e.g., color, orientation, size) attributes as students actively build and draw shapes to match defining attributes. Students build composite shapes from two- and three-dimensional shapes and are able to compose new shapes from the composite shape. First-graders also partition circles and rectangles into fractional pieces and learn the associated vocabulary (*halves*, *fourths*, and *quarters*).

With implementation of the CCSS, the concepts of “putting shapes together and taking them apart,” which were introduced in the 1997 California mathematics standards in grade two, will be developed at grade one. Fractional parts will be introduced in grade one instead of grade two (as was done in the 1997 California mathematics standards).

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first, second, last, before, every, each, more, and equal*. Students may be unfamiliar with *sum, difference, solve, length, and value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the face of a clock).
- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than, less than, most often, least often*), or position words (*behind, below, in front of, to the right of, to the left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Transition to the Common Core State Standards

The following chart highlights a few topics that will continue to be addressed at the same grade level, and some changes to be considered, as California progresses toward full implementation of the first-grade CCSS for mathematics. The chart includes the column heading “Overview of Standards.” For the 1997 California mathematics standards, this information is from the “strands” (e.g., Number Sense) and the “overarching” standards (e.g., Number Sense 1.0) at first grade. For the CCSS, the column lists the “domains” (e.g., Operations and Algebraic Thinking) and the “cluster headings” for the standards (e.g., Represent and solve problems involving addition and subtraction) at first grade.

The chart does not, and is not intended to, illustrate all of the differences between the two sets of standards—it is merely a beginning point for more in-depth discussion by teachers and other educators on how instruction may change.

The transition chart is followed by a complete set of the CCSS, with California additions, for first grade and then a table of the CCSS domains for kindergarten through grade six.

A Quick Look: Transition to the Common Core State Standards

Mathematics: Grade One

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Algebra and Functions</p> <ul style="list-style-type: none"> Students use number sentences with operational symbols and expressions to solve problems. <p>Number Sense</p> <ul style="list-style-type: none"> Students understand and use numbers up to 100. Students demonstrate the meaning of addition and subtraction and use these operations to solve problems. Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, and hundreds places. 	<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> Represent and solve problems involving addition and subtraction. Understand and apply properties of operations and the relationship between addition and subtraction. Add and subtract within 20. Work with addition and subtraction equations. <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> Extend the counting sequence. Understand place value. Use place value understanding and properties of operations to add and subtract. 	<ul style="list-style-type: none"> Continue a focus on addition and subtraction within 20, but develop fluency with sums and difference within 10 (fluency with numbers from 11 to 20 moves from grade one to grade two in the CCSS). ▲** Introduce the properties of operations as strategies to add and subtract (moves from grade two to grade one in the CCSS). ▼ Use objects, drawings, and equations with symbols for unknowns to solve addition and subtraction problems (within 20), including word problems. Work with the value of coins (moves from grade one to grade two in the CCSS). ▲
		<ul style="list-style-type: none"> Begin counting to 100 in kindergarten—counting by ones and tens (counting by ones from 31 to 100 and skip-counting moves from grade one to kindergarten in the CCSS). ▼ Extend counting, reading, and writing whole numbers from 100 to 120 (work with numbers from 100 to 120 moves from grade two to grade one in the CCSS). ▼ Use concrete models or drawings to reinforce understanding of topics such as place value, addition and subtraction. Add within 100 (two-digit and a one-digit number). Extend to a two-digit number and a multiple of 10. Subtract multiples of 10 for numbers in the range 10–90.

*The 1997 California mathematics standards will continue to be assessed through the STAR system (in grades two through eleven) until at least 2014.

**The ▼ symbol indicates that all or part of a concept in the 1997 California standards has moved to a lower grade in the CCSS; the ▲ symbol indicates movement to a higher grade. Listings without a symbol indicate that a concept will continue to be taught at the current grade level.

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade One

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Measurement and Geometry</p> <ul style="list-style-type: none"> Students use direct comparison and nonstandard units to describe the measurements of objects. Students identify common geometric figures, classify them by common attributes, and describe their relative position or their location in space. <p>Statistics, Data Analysis, and Probability</p> <ul style="list-style-type: none"> Students organize, represent, and compare data, by category, on simple graphs and charts. Students sort objects and create and describe patterns by numbers, shapes, sizes, rhythms, or colors. 	<p>Measurement and Data</p> <ul style="list-style-type: none"> Measure lengths indirectly and by iterating length units. Tell and write time. Represent and interpret data. 	<ul style="list-style-type: none"> Measure the length of objects by using indirect comparison and by iterating length units (a focus on weight and volume moves from grade one to grade three in the CCSS). ▲ Organize, represent, and interpret data, with up to three categories (specific use of picture graphs and bar graphs moves from grade one to grade two in the CCSS). ▲ Describe, extend, and explain simple repeating patterns.
	<p>Geometry</p> <ul style="list-style-type: none"> Reason with shapes and their attributes. 	<ul style="list-style-type: none"> Build and draw shapes that possess certain attributes (understanding attributes remains at grade one with an added focus on actively building and drawing in the CCSS). ▼ Compose and decompose two- or three- dimensional shapes to create a composite shape (putting shapes together and taking them apart moves from grade two to grade one in the CCSS). ▼ Partition circles and rectangles into equal shares to introduce “part-whole” relationships and fractional terms; for example, halves, fourths, and quarters (fractional parts move from grade two to grade one in the CCSS). ▼

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade One

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Mathematical Reasoning</p> <ul style="list-style-type: none"> • Students make decisions about how to set up a problem. • Students solve problems and justify their reasoning. • Students note connections between one problem and another. 	<p>Standards for Mathematical Practice</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> • Describe the relative positions of objects, for example, above or behind (moves from grade one to kindergarten in the CCSS). ▼ • The CCSS include Standards for Mathematical Content (different at each grade) and Standards for Mathematical Practice (recurring throughout the grades). • To master the grade-level content, students will need to rely on their understanding of a concept and not only on procedures. Standards for Mathematical Practice define how students develop mathematical understanding as they make sense of a problem, reason abstractly, construct arguments, model with mathematics, use tools strategically, attend to precision, and look for structure and repeated reasoning. • Standards for Mathematical Content that set an expectation of “understanding” are potential points of intersections between these standards and the Standards for Mathematical Practice. • Standards for Mathematical Practice are similar to the previous 1997 California Mathematical Reasoning standards and should be evident throughout future curricula, assessments, and professional development.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-one CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-one 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade One

Operations and Algebraic Thinking (1.OA)

Represent and solve problems involving addition and subtraction.

1.	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. ¹
2.	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

3.	Apply properties of operations as strategies to add and subtract. ² <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i>
4.	Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</i>

Add and subtract within 20.

5.	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6.	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

1. See the Glossary, Table 1, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

2. Students need not use formal terms for these properties.

Work with addition and subtraction equations.

7.	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i>
7.1	Write and solve number sentences from problem situations that express relationships involving addition and subtraction within 20.
8.	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.</i>

Number and Operations in Base Ten (1.NBT)**Extend the counting sequence.**

1.	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
----	--

Understand place value.

2.	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones—called a “ten.” b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
3.	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.

Use place value understanding and properties of operations to add and subtract.

4.	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
5.	Given a two-digit number, mentally find 10 or more or 10 less than the number, without having to count; explain the reasoning used.
6.	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Measurement and Data (1.MD)**Measure lengths indirectly and by iterating length units.**

1.	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
----	---

Measure lengths indirectly and by iterating length units. *(continued)*

- | | |
|----|---|
| 2. | Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i> |
|----|---|

Tell and write time.

- | | |
|----|--|
| 3. | Tell and write time in hours and half hours using analog and digital clocks. |
|----|--|

3.1 Relate time to events (e.g., before/after, shorter/longer).**Represent and interpret data.**

- | | |
|----|--|
| 4. | Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many (more or less) are in one category than in another. |
|----|--|

4.1 Describe, extend, and explain ways to get to a next element in simple repeating patterns (e.g., rhythmic, numeric, color, and shape). (CA-Standard SDAP 2.1)**Geometry (1.G)****Reason with shapes and their attributes.**

- | | |
|----|--|
| 1. | Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. |
| 2. | Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. ³ |
| 3. | Partition circles and rectangles into two and four equal shares, describe the shares using the words <i>halves</i> , <i>fourths</i> , and <i>quarters</i> , and use the phrases <i>half of</i> , <i>fourth of</i> , and <i>quarter of</i> . Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. |

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

3. Students do not need to learn formal names such as "right rectangular prism."

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Second-Grade Curriculum



What will my child learn in English language arts and mathematics in second grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance second-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of second grade. Each section includes a brief overview of what the student should have learned before entering second grade, followed by a description of the second-grade standards. Each subject concludes with a list of the second-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

For students in second grade, instruction focuses on developing literacy and proficiency in language arts, with the goal that all students become lifelong readers, competent writers, and effective communicators. Literacy is critical to academic success and is the key to becoming an independent learner in all other disciplines. Students need to be competent in reading and English language arts to be able to obtain information in all content areas and communicate to others what they have learned. By the end of second grade, students should be able to read with accuracy and fluency to support their comprehension of literature and informational text. Their oral reading skills should be developed to the point that they can read grade-level text orally with expression.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus more on informational text, text-analysis skills for reading comprehension, opinion pieces, informational/explanatory compositions, and collaborative conversations about grade-level texts and topics.

This section provides an overview of the new CCSS for second-grade English language arts. It includes a review of the important English language arts skills and concepts from first grade (prerequisite skills) and guidance to ensure success for struggling readers, including English learners. A complete list of the second-grade CCSS for English language arts, with California additions, can be found at the end of this section. The 1997 California English language arts standards for kindergarten through grade twelve is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Second-Grade Students Should Know

In first grade, students learned skills that enable them to read and write with a degree of independence. They should be able to read common sight words and produce the sounds for consonants, consonant blends, and long and short vowels. Students who mastered the first-grade standards have the ability to decode increasingly complex words. They can read first-grade texts accurately and with purpose and understanding. They have read, or had read aloud to them, a variety of literature and informational texts and know how to ask clarifying questions about these texts. In addition, students have expanded their reading-comprehension strategies for both narrative and informational text. They are able to retell the main idea of a

narrative or expository text and respond to clarifying questions in expository text.

In first grade, students learned new academic and content-specific vocabulary by using context clues, identifying familiar root words in words with affixes, reading and being read aloud to, and in-depth conversations about first-grade texts and topics. Students learned to write simple compositions in which they applied their knowledge of language conventions, including correctly using singular and plural nouns, capitalizing the first word of a sentence, and using the appropriate ending punctuation to complete sentences.

What Students Learn in Second Grade

In second grade, fluency, comprehension, and analysis are the focus of reading instruction. Students apply their knowledge of the basic features of reading to achieve fluency in oral and silent reading. Students ask and answer clarifying questions about text (e.g., *who, what, why*), use the features of text (e.g., headings, bold typeface) to locate information in expository text, and consider the author's purpose as they analyze informational text. Students use these strategies to better comprehend their readings in all content areas. In second grade, students learn more sophisticated strategies to analyze literature. For example, they compare and contrast different versions of the same story from different cultures.

Students write compositions by using correct English conventions. They learn to use reference materials to locate information for their written compositions and oral reports. Their written products become longer, and students pay more attention to the organization of their compositions. Students develop initial skills in editing and revising text at this grade level. Students in second grade learn to give and follow multiple-step directions, provide descriptive details when telling stories or recounting events, and structure their oral presentations in a logical sequence. Students learn new vocabulary and academic language as they read and speak about grade-level texts and topics. They learn to use dictionaries and glossaries to clarify the meaning of words and to check and correct their spelling. They use their knowledge of individual words to predict the meaning of compound words. They also use their knowledge of prefixes to determine the meaning of a new word formed when a prefix is added to a known word.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

In second grade, students read and comprehend a wide variety of significant works of children's literature, including stories and poetry. Both the 1997 California English language arts standards and the CCSS incorporate text-analysis skills and strategies that lead to students' fuller comprehension of the literature they read. Students analyze the elements of narrative text, the characters, plot, and setting. Students learn about rhythm, rhyme, and alliteration and how those techniques add meaning to a story or poem. They compare and contrast elements within and among texts. Students read, comparing and contrasting versions of stories written by different authors or from different cultures.

The text-analysis skills for second-grade students in the CCSS go beyond those in the 1997 California English language arts standards, with emphases on the message or lesson of the text, the differences between a story's characters, and the structure of stories. Students read and recount stories, fables, and folktales from diverse cultures and determine the central message, lesson, or moral. Students learn to perceive and describe how the characters in a story respond to major events and challenges. They recognize the different points of view of characters in a story and how those differences are expressed in dialogue. Students demonstrate this understanding by using different voices for each character when reading dialogue aloud. Students also learn about the overall structure of stories. They understand and can describe how the story is introduced in the beginning and how the action is concluded. This understanding not only helps students to better comprehend stories, it also supports their narrative writing and speaking, both of which call for a conclusion or sense of closure.

Reading Standards for Informational Text

Reading and comprehending informational text are critical for students' achievement in all content areas. Both the 1997 California English language arts standards and the CCSS reflect the importance of comprehension skills and strategies for students' academic success. Students ask clarifying questions (e.g., *who*, *why*, *how*) about the essential elements or key details of informational text. They learn to use text features, such as headings, to locate information or key facts in text. They learn how to identify the main purpose of the text, including what the author wants to explain or describe, and then use their knowledge of the author's purpose to comprehend the text. Students learn to interpret information from diagrams, charts, and graphs.

The CCSS support a deeper analysis of informational text. Students learn to identify not only the main topic of a multiparagraph text, but also the focus of each paragraph in the text. Building on this identification of key ideas, students learn to recognize, and later describe, how the author

supports specific points in the text with reasons. Students also compare and contrast the most important points in two texts on the same topic. They learn to recognize and then describe connections between a series of historical events, scientific ideas, or steps in technical procedures in a text. To locate key facts and information, students use not only the features of printed text but also electronic menus and icons in electronic media. By the end of second grade, students read grade-level informational texts and are able to use a variety of text-analysis and comprehension strategies to understand what they read.

Reading Standards in Foundational Skills

The CCSS and the 1997 California English language arts standards maintain word-recognition skills as the focal point, systematically building on skills learned in kindergarten and first grade. Students learn new word-analysis skills that are introduced sequentially and systematically. Students who lack proficiency in the prerequisite skills must be taught those skills before they are presented with more complex words. In second grade, students learn to recognize and distinguish spelling-sound correspondences such as long and short vowels. Students typically make great strides in reading fluency as they apply their newly acquired decoding and word-recognition skills. Students read multisyllabic words by breaking the word into syllables and use their knowledge of prefixes and suffixes to determine the word's meaning.

The 1997 California English language arts standards set expectations for second-grade students to be fluent in silent and oral reading, capable of reading grade-level material aloud accurately in a manner that sounds like natural speech. The CCSS extend these reading-fluency expectations by also requiring students to read with purpose and understanding. Students use context to confirm or self-correct their word recognition and understanding of text by rereading when necessary. In this way, the CCSS emphasize the link between students' fluency and comprehension.

Writing

High-quality literature and informational text serve as models for students' writing and, as such, reinforce the reciprocal relationship between reading, vocabulary development, and writing. Much of what students learn about analyzing the texts they read supports the writing skills they learn and practice in second grade. For example, students apply their knowledge of the structure of the stories they read, how stories begin and end, and how events are sequenced in order to compose their own stories in a logical sequence. The academic language they learn in discussions about texts (e.g., *evidence*, *plot*, *main idea*, *key details*) provides students

with words to use when speaking about their writing. Students use the vocabulary they learn through reading grade-level texts to describe events and characters in their compositions. They write with a command of English conventions appropriate to second grade, which have been modeled in texts they read or heard.

In grade two, the 1997 California English language arts standards and the CCSS for writing differ in several ways. The 1997 California English language arts standards emphasize the stages of the writing process (pre-writing, drafting, revising, editing successive versions). Students' writing includes friendly letters and brief narratives that move through a sequence of events and describe the setting, characters, objects, and events in detail. In comparison, the CCSS call for students to write opinion pieces and informative/explanatory texts in addition to writing narratives, and they are explicit about the expected quality of students' compositions. Students learn to write opinion pieces that introduce a topic, state an opinion, supply reasons to support the opinion, use linking words to connect their opinion and reasons, and provide a concluding statement. In their informative/explanatory texts, students learn to use facts and definitions to develop their points. Students describe thoughts and feelings, in addition to events, and use words to signal event order in their narratives. The CCSS emphasize writing in different time frames (over several days, at a single sitting) and writing for specific tasks and purposes, including content-specific tasks (e.g., lab and history reports). Students also learn to conduct shared research and writing projects and to use a variety of digital tools to produce and publish writing.

Speaking and Listening

Students' proficiency in speaking and listening expands in second grade. Students are responsible for comprehending larger amounts of information presented orally (e.g., three- to four-step instructions) and for communicating their ideas with increased attention to detail and substance (e.g., reporting on an event with supportive facts and descriptive details). Students practice the strategy of organizing both narrative and expository texts chronologically. They ask questions for clarification, additional information, or further explanation. With practice, they learn to speak with appropriate volume and in coherent, complete sentences.

The 1997 California English language arts standards focus on students giving individual oral presentations, including recounting experiences, telling stories, or reporting on a topic with facts and details drawn from several sources of information. The CCSS bring two important additions to that focus: collaborative conversations and audio recordings. Students participate in collaborative conversations about grade-level texts and

topics, doing so with peers and adults in diverse groups of variable sizes. They follow agreed-on rules and build on others' talk by linking their comments to the remarks of others. In these conversations, students learn and practice communication skills. In addition, collaborative conversations provide students with opportunities to use academic language from other subjects and new vocabulary learned through their reading. In second grade, students begin to use electronic media to record their speaking tasks. Students create audio recordings of their presentations of stories or poems. When students listen to the recordings of their own presentations, they can evaluate the quality of their presentations and use that information to improve their speaking skills.

Language

In second grade, students are expected to write and speak with a command of many of the conventions of English. Although students produce some writing electronically, they primarily create readable documents with legible writing. They learn to identify and correctly use parts of speech (e.g., nouns, verbs, and pronouns) in writing and speaking. They learn more rules for capitalization, comma use, and spelling, though the specific rules they learn vary between the 1997 California English language arts standards and the CCSS.

Under the CCSS, students learn to use collective nouns, frequently occurring irregular plural nouns (e.g., *feet*, *mice*), and reflexive pronouns (e.g., *myself*, *ourselves*). They learn to form and use the past tense of commonly used irregular verbs, and they learn to correctly use adjectives and adverbs. They apply rules for capitalizing holidays, product names, and geographic names. Students learn to use apostrophes correctly to form contractions and possessives. Their knowledge of spelling patterns allows them to generalize when writing new words, but they also learn to use reference materials, including beginning dictionaries, to check and correct their spelling.

Second-graders compare formal and informal uses of language. As students have learned language conventions and academic vocabulary, they may have realized that the language they use in school is different from the language they use on the playground and at home, or from what they hear on television. Now they learn the terms “formal” and “informal” and when it is appropriate to use formal or informal language (sometimes referred to as code switching).

Vocabulary development is an ongoing task for students. Throughout the school year, grade-level texts and topics introduce students to new words or alternate meanings of known words in all subject areas. Writing activities and speaking tasks, especially collaborative conversations,

provide students with opportunities to use newly acquired vocabulary and academic language.

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover basic strategies for determining the meaning of words. Students learn to use their knowledge of the meanings of prefixes and suffixes to determine the meaning of new words formed by them. They also learn to predict the meaning of compound words by using their knowledge of the meanings of the individual words that form them.

The CCSS present two additional strategies for students to learn and practice. Students learn to use sentence-level context as a clue to the meaning of a word. They also use glossaries and beginning dictionaries, both digital and print, to determine or clarify the meaning of words in all subject areas. In addition, the CCSS emphasize the richness of language—in particular, word relationships and nuances in word meanings. Students identify real-life connections between words and their use (e.g., describe animals that are *furry* or *scaly*). Students also learn to distinguish shades of meaning among closely related verbs and adjectives.

Extra Support for Struggling Readers

By the end of second grade, students are expected to read with sufficient accuracy and fluency to support comprehension. Students who are not proficient in phonics and word-recognition skills are likely to experience academic difficulties. Early screening can identify specific areas of instructional needs that can be addressed in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they will become proficient in second-grade reading skills. Instructional support for students should include:

- flexible grouping for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- explicit phonics instruction of vowel patterns by teaching the patterns in isolation, then in words and controlled text, and finally in regular trade books;
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and in their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing. Students who enter second grade with little prior schooling and limited English skills must learn to read and write while learning English.

English learners should receive intensive instruction in vocabulary development and academic language to succeed in language arts and other content areas at their grade level. English learners encounter difficulty when reading unknown vocabulary in stories. English learners can develop their vocabulary when teachers:

- provide explicit vocabulary instruction that preteaches vocabulary;
- model the pronunciation of words;
- use scaffolds (e.g., summary sheets, charts, visuals);
- encourage students to use the key vocabulary from stories and informational texts in class discussions and writing assignments.

English learners who have limited academic experience and language skills require intensive, systematic instruction in oral and written language that emphasizes the rules of grammar, such as the use of collective nouns, reflexive pronouns, and adjectives and adverbs. (For a more extensive list of the conventions of grammar, refer to the “Transition to the Common Core State Standards with California Additions: Planning ELD Instruction” chart that follows.) Instruction for English learners includes attention to the phonological, morphological, syntactical, and semantic structures of English. Explicit instruction in vocabulary strategies can teach students to use morphological knowledge of prefixes, suffixes, and root words to determine the meaning of unknown words and increase their reading comprehension.

Texts selected for English learners should be authentic when possible. Simplified texts should be used only with students who need intensive English-language instruction to enable them to catch up with their peers.

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive

and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available at the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Second Grade

Reading Standards for Literature	<ol style="list-style-type: none"> 2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. 3. Describe how characters in a story respond to major events and challenges. 6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud. 7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot. 9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures. 10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Reading Standards for Informational Text	<ol style="list-style-type: none"> 3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. 6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe. 7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. 8. Describe how reasons support specific points the author makes in a text. 9. Compare and contrast the most important points presented by two texts on the same topic. 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Note: California additions are in bold typeface and underlined.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Second Grade *(continued)*

<p>Reading Standards: Foundational Skills</p>	<p>4. Read with sufficient accuracy and fluency to support comprehension.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>
<p>Writing Standards</p>	<p>1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.</p> <p>4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3.)</p> <p>5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.</p> <p>6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p>7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).</p> <p>8. Recall information from experiences or gather information from provided sources to answer a question.</p> <p>10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>
<p>Speaking and Listening Standards</p>	<p>4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p> <p>a. Plan and deliver a narrative presentation that: recounts a well-elaborated event, includes details, reflects a logical sequence, and provides a conclusion.</p> <p>5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.</p>
<p>Language Standards</p>	<p>1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Create readable documents with legible print.</p> <p>b. Use collective nouns (e.g., <i>group</i>).</p> <p>d. Use reflexive pronouns (e.g., <i>myself, ourselves</i>).</p>

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Second Grade *(continued)*

<p>Language Standards <i>(continued)</i></p>	<ul style="list-style-type: none"> e. Form and use the past tense of frequently occurring irregular verbs (e.g., <i>sat, hid, told</i>). f. Use adjectives and adverbs, and choose between them depending on what is to be modified. g. Produce, expand, and rearrange complete simple and compound sentences (e.g., <i>The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy</i>). <p>2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> a. Capitalize holidays, product names, and geographic names. b. Use commas in greetings and closings of letters. c. Use an apostrophe to form contractions and frequently occurring possessives. d. Generalize learned spelling patterns when writing words (e.g., <i>cage</i> → <i>badge</i>; <i>boy</i> → <i>boil</i>). e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings. <p>3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ul style="list-style-type: none"> a. Compare formal and informal uses of English. <p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 2 reading and content</i>, choosing flexibly from an array of strategies.</p> <ul style="list-style-type: none"> a. Use sentence-level context as a clue to the meaning of a word or phrase. e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases in all content areas. <p>5. Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> a. Identify real-life connections between words and their use (e.g., describe foods that are <i>spicy</i> or <i>juicy</i>). <p>6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., <i>When other kids are happy that makes me happy</i>).</p>
---	---

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to the CCSS and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These grade-two CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-two 1997 California English language arts standards is located at the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade Two

Reading Standards for Literature

Key Ideas and Details

1.	Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.
2.	Recount stories, including fables and folktales from diverse cultures, and determine the central message, lesson, or moral.
3.	Describe how characters in a story respond to major events and challenges.

Craft and Structure

4.	Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. <u>(See grade 2 Language standards 4–6 for additional expectations.)</u>
5.	Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6.	Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Integration of Knowledge and Ideas

7.	Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of the characters, setting, or plot.
8.	(Not applicable to literature)
9.	Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
|-----|---|

Reading Standards for Informational Text
Key Ideas and Details

- | | |
|----|---|
| 1. | Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text. |
| 2. | Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text. |
| 3. | Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. |

Craft and Structure

- | | |
|----|---|
| 4. | Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. (See grade 2 Language standards 4–6 for additional expectations.) |
| 5. | Know and use various text features (e.g., captions, bold typeface, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. |
| 6. | Identify the main purpose of a text, including what the author wants to answer, explain, or describe. |

Integration of Knowledge and Ideas

- | | |
|----|---|
| 7. | Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. |
| 8. | Describe how reasons support specific points the author makes in a text. |
| 9. | Compare and contrast the most important points presented by two texts on the same topic. |

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of year, read and comprehend informational texts, including history/ social studies, science, and technical texts, in the grades 2-3 text-complexity band proficiently, with scaffolding as needed at the high end of the range. |
|-----|---|

Reading Standards: Foundational Skills
Phonics and Word Recognition

- | | |
|----|--|
| 3. | Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text. <ol style="list-style-type: none"> a. Distinguish long and short vowels when reading regularly spelled one-syllable words. b. Know spelling-sound correspondences for additional common vowel teams. |
|----|--|

Phonics and Word Recognition *(continued)*

- | | |
|--|--|
| | <ul style="list-style-type: none"> c. Decode regularly spelled two-syllable words with long vowels. d. Decode words with common prefixes and suffixes. e. Identify words with inconsistent but common spelling-sound correspondences. f. Recognize and read grade-appropriate irregularly spelled words. |
|--|--|

Fluency

- | | |
|----|---|
| 4. | <p>Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. |
|----|---|

Writing Standards**Text Types and Purposes**

- | | |
|----|---|
| 1. | Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. |
| 2. | Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section. |
| 3. | Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. |

Production and Distribution of Writing

- | | |
|-----------|---|
| 4. | <u>With guidance and support from adults, produce writing in which the development and organization are appropriate to the task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</u> |
| 5. | With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. |
| 6. | With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. |

Research to Build and Present Knowledge

- | | |
|----|--|
| 7. | Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). |
| 8. | Recall information from experiences or gather information from provided sources to answer a question. |
| 9. | (Begins in grade 4) |

Range of Writing

- | | |
|------------|---|
| 10. | <u>Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</u> |
|------------|---|

Speaking and Listening Standards
Comprehension and Collaboration

- | | |
|----|--|
| 1. | Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. <ol style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion. |
| 2. | Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
a. Give and follow three- and four-step oral directions. |
| 3. | Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. |

Presentation of Knowledge and Ideas

- | | |
|----|---|
| 4. | Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
<u>a. Plan and deliver a narrative presentation that: recounts a well-elaborated event, includes details, reflects a logical sequence, and provides a conclusion.</u> |
| 5. | Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. |
| 6. | Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.) |

Language Standards
Conventions of Standard English

- | | |
|----|--|
| 1. | Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <ol style="list-style-type: none"> <u>a. Create readable documents with legible print.</u> b. Use collective nouns (e.g., <i>group</i>). c. Form and use frequently occurring irregular plural nouns (e.g., <i>feet, children, teeth, mice, fish</i>). d. Use reflexive pronouns (e.g., <i>myself, ourselves</i>). |
|----|--|

Conventions of Standard English (*continued*)

	<p>e. Form and use the past tense of frequently occurring irregular verbs (e.g., <i>sat, hid, told</i>).</p> <p>f. Use adjectives and adverbs, and choose between them depending on what is to be modified.</p> <p>g. Produce, expand, and rearrange complete simple and compound sentences (e.g., <i>The boy watched the movie; The little boy watched the movie, The action movie was watched by the little boy</i>).</p>
2.	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Capitalize holidays, product names, and geographic names.</p> <p>b. Use commas in greetings and closings of letters.</p> <p>c. Use an apostrophe to form contractions and frequently occurring possessives.</p> <p>d. Generalize learned spelling patterns when writing words (e.g., <i>cage</i> → <i>badge</i>; <i>boy</i> → <i>boil</i>).</p> <p>e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</p>

Knowledge of Language

3.	<p>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Compare formal and informal uses of English.</p>
----	--

Vocabulary Acquisition and Use

4.	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 2 reading and content</i>, choosing flexibly from an array of strategies.</p> <p>a. Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p>b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., <i>happy/unhappy, tell/retell</i>).</p> <p>c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>addition, additional</i>).</p> <p>d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., <i>birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark</i>).</p> <p>e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases in all content areas.</p>
5.	<p>Demonstrate understanding of word relationships and nuances in word meanings.</p> <p>a. Identify real-life connections between words and their use (e.g., describe foods that are <i>spicy</i> or <i>juicy</i>).</p> <p>b. Distinguish shades of meaning among closely related verbs (e.g., <i>toss, throw, hurl</i>) and closely related adjectives (e.g., <i>thin, slender, skinny, scrawny</i>).</p>
6.	<p>Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., <i>When other kids are happy that makes me happy</i>).</p>

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understanding, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for second grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s second-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for second-grade mathematics, including some highlights of how the second-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of the important mathematical concepts and skills from first grade (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the second-grade CCSS, with California additions, for mathematics can be found at the end of this section. A complete list of the second-grade 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Second-Grade Students Should Know

When entering second grade, students who have met the first-grade CCSS for mathematics have an understanding of whole numbers and place value (within 100). They used objects, drawings, and symbols for the unknown number to solve addition and subtraction word problems (within 20) and are fluent with these operations (within 10). Entering second-graders can add two-digit and one-digit numbers (or a two-digit number and a multiple of ten) within 100 by using concrete models or drawings and a variety of strategies (e.g., place value or properties of operations). They learned to use mental math to find 10 more or 10 less than a two-digit number and can subtract multiples of 10 from multiples of 10 (for positive or zero differences and numbers in the range 10–90).

Students have worked with measurement, data, and shapes. They can measure the length of objects by indirect comparison and can organize, represent, and interpret data with up to three categories. Students have an initial understanding of how to describe, extend, and explain ways to get to a next element in simple repeating patterns. They can build two- and three-dimensional shapes and can partition circles and rectangles into fractional pieces and use the related vocabulary (*halves*, *fourths*, and *quarters*).

What Students Learn in Second Grade

Students in second grade extend their understanding of place value (within 1,000), build fluency in addition and subtraction (within 100), and use simple concepts of multiplication and division. They measure the length of objects by using appropriate tools, and they identify shapes and their attributes.

Operations and Algebraic Thinking

The 1997 California mathematics standards and the CCSS develop addition and subtraction knowledge and skills at second grade. Students in the second grade use addition and subtraction within 100 to solve one- and two-step word problems with unknowns in all positions. They represent problems by using drawings and equations with a symbol for the unknown number, use mental strategies to add and subtract within 20, and know from memory all sums of two one-digit numbers (a topic in the 1997 California mathematics standards in first grade).

The 1997 California mathematics standards and the CCSS build upon the foundations of addition and subtraction to develop the concepts of multiplication and division. Students use repeated addition and counting by multiples to demonstrate multiplication and use repeated subtraction and equal group sharing to demonstrate division.

With full implementation of the CCSS, use of the commutative and associative properties to solve addition and subtraction problems will be introduced in first grade, a second-grade topic in the 1997 California mathematics standards. The memorization of multiplication tables for 2s and 5s, introduced in second grade in the 1997 California standards, will become a third-grade topic.

Number and Operations in Base Ten

In second grade, students' growing understanding of whole numbers is a fundamental topic. Students extend their understanding of place value as they associate the digits of a three-digit number as amounts of hundreds, tens, and ones. They read, write, order, and compare whole numbers and skip count by 2s, 5s, 10s, and 100s within 1,000. Skip-counting to 100 is introduced at first grade in the 1997 California mathematics standards.

In both the 1997 California mathematics standards and the CCSS, students add and subtract within 1,000, although the CCSS specify student fluency in addition and subtraction within 100. To foster a deep understanding of addition and subtraction, students use concrete models or drawings and strategies based on place value, properties of operations, and the relationship between addition and subtraction to solve problems. Second-grade students extend their addition skills as they add up to four two-digit numbers and mentally add and subtract 10 or 100 from numbers between 100 and 900 (the CCSS emphasize the use of operations with multiples of 10 to develop understanding of place value).

Second-graders learn the basics of how to “carry” and “borrow” as addition and subtraction expands to include three-digit numbers (e.g., adding or subtracting numbers column by column—the ones and ones, tens and tens, and hundreds and hundreds). Students in these early grades often have trouble lining up numbers for addition or subtraction and may need to be reminded that it is essential to line up numbers in the correct position for their place value. Initially, limiting problems to those that require carrying or borrowing across only one column (e.g., $17 + 24$, $43 - 7$) will make this less confusing to students.

With full implementation of the CCSS, instruction in how to recognize, name, and compare fractions will be addressed in grade three, a second-grade topic in the 1997 California mathematics standards.

Measurement and Data

In second grade, both the 1997 California mathematics standards and the CCSS introduce the concept of standard units of measure, but with a few differences. Students estimate and measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes (selection of appropriate tools and units is a grade-

three topic in the 1997 California mathematics standards). Second-grade students relate addition and subtraction to length as they represent positive whole numbers (from 0) and whole-number sums and differences within 100 on a number-line diagram. The 1997 California mathematics standards introduce number-line diagrams in fourth grade.

Students model and solve problems involving amounts of money (e.g., If a boy has two dimes and three pennies, how many cents does he have?). Money problems provide second-graders with a practical context for the concepts of addition and subtraction. Students also use picture graphs and bar graphs to represent and interpret data.

With full implementation of the CCSS, the identification of “range” as a feature of data sets will be introduced at sixth grade, a second-grade topic in the 1997 California mathematics standards.

Geometry

Second-grade students extend their understanding of plane and solid geometric shapes as they recognize and describe shapes by various attributes (e.g., the number of angles and equal faces). In the CCSS, second-graders also learn to draw various shapes. Students are introduced early to the concept of area as they partition rectangles into rows and columns (and count the number of squares). They also partition circles and rectangles into two, three, and four equal shares and learn the associated fraction vocabulary (*thirds, a third of*).

With full implementation of the CCSS, the concept of “putting shapes together” will be part of the kindergarten and first-grade curriculum (a second-grade topic in the 1997 California mathematics standards). In addition, recognizing and describing arithmetic patterns will be introduced at third grade (a second-grade topic in the 1997 California mathematics standards).

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first*, *second*, *last*, *before*, *every*, *each*, *more*, and *equal*. Students may be unfamiliar with *sum*, *difference*, *solve*, *length*, and *value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the *face* of a clock).
- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than*, *less than*, *most often*, *least often*), or position words (*behind*, *below*, *in front of*, *to the right of*, *to the left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Transition to the Common Core State Standards

The following chart highlights a few topics that will continue to be addressed at the same grade level, and some changes to be considered, as California progresses toward full implementation of the second-grade CCSS for mathematics. The chart includes the column heading “Overview of Standards.” For the 1997 California mathematics standards, this information is from the “strands” (e.g., Number Sense) and the “overarching” standards (e.g., Number Sense 1.0) at second grade. For the CCSS, the column lists the “domains” (e.g., Operations and Algebraic Thinking) and the “cluster headings” for the standards (e.g., Represent and solve problems involving addition and subtraction) at second grade.

The chart does not, and is not intended to, illustrate all of the differences between the two sets of standards—it is merely a beginning point for more in-depth discussion by teachers and other educators on how instruction may change.

The transition chart is followed by a complete set of the CCSS, with California additions, for second grade and then a table of the CCSS domains for kindergarten through grade six.

A Quick Look: Transition to the Common Core State Standards

Mathematics: Grade Two

Overview of Standards		Highlights
1997 California Mathematics Standards*		CCSS
<p>Algebra and Functions</p> <ul style="list-style-type: none"> Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. <p>Number Sense</p> <ul style="list-style-type: none"> Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000. Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers. Students model and solve simple problems involving multiplication and division. Students understand that fractions and decimals may refer to parts of a set and parts of a whole. Students model and solve problems by representing, adding, and subtracting amounts of money. Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places. 	<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> Represent and solve problems involving addition and subtraction. Add and subtract within 20. Work with equal groups of objects to gain foundations for multiplication. <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> Understand place value. Use understanding of place value and properties of operations to add and subtract. 	<ul style="list-style-type: none"> Fluently add and subtract within 20, and memorize all sums of two one-digit numbers (memorize addition facts to 20 moves from grade one to grade two in the CCSS). ▲** Use repeated addition and counting by multiples to demonstrate multiplication (memorize multiplication tables for 2s, 5s, and 10s moves from grade two to grade three in the CCSS). ▲ Use repeated subtraction and equal group sharing to demonstrate division. Understand a three-digit number represents amounts of hundreds, tens, and ones. Read, write and count within 1,000; skip count by 2s, 5s, 10s, and 100s (skip-counting by 2s, 5s, and 10s to 100 moves from grade one to grade two in the CCSS). ▲ Add up to four two-digit numbers (a new emphasis in the CCSS). Fluently add and subtract within 100; add and subtract within 1,000 (using concrete models, properties of operations, or other strategies). Mentally add or subtract 10 or 100 for numbers 100–900. Fractions as numbers (how to recognize, name, and compare fractions moves from grade two to grade three in the CCSS). ▲

*The 1997 California mathematics standards will continue to be assessed through the STAR system (in grades two through eleven) until at least 2014.

**The ▼ symbol indicates that all or part of a concept in the 1997 California standards has moved to a lower grade in the CCSS; the ▲ symbol indicates movement to a higher grade. Listings without a symbol indicate that a concept will continue to be taught at the current grade level.

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade Two

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Measurement and Geometry</p> <ul style="list-style-type: none"> Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured. Students identify and describe the attributes of common figures in the plane and of common objects in space. <p>Statistics, Data Analysis, and Probability</p> <ul style="list-style-type: none"> Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations. Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways. 	<p>Measurement and Data</p> <ul style="list-style-type: none"> Measure and estimate lengths in standard units. Relate addition and subtraction to length. Work with time and money. Represent and interpret data. 	<ul style="list-style-type: none"> Measure the length of an object using appropriate tools such as rulers and meter sticks (selection of appropriate tools and units moves from grade three to grade two in the CCSS). ▼ Use a number line diagram to represent whole numbers as lengths (from 0) and whole-number sums and differences (within 100) (the introduction of number lines moves from grade four to grade two in the CCSS). ▼ Represent and compare data by using bar graphs and picture graphs (moves from grade one to grade two in the CCSS). ▲ Solve word problems involving the value of money (introduction to the value of coins moves from grade one to grade two in the CCSS). ▲ "Range" of data sets (how to identify the "range" moves from grade two to grade six in the CCSS). ▲
	<p>Geometry</p> <ul style="list-style-type: none"> Reason with shapes and their attributes. 	<ul style="list-style-type: none"> Partition circles and rectangles into two, three and four equal shares, describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, etc., and describe the whole as two halves, three thirds, and so on. Compose shapes (putting shapes together moves from grade two to kindergarten and grade one in the CCSS). ▼ Identify arithmetic patterns (how to recognize and describe arithmetic patterns moves from grade two to grade three in the CCSS). ▲

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade Two

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Mathematical Reasoning</p> <ul style="list-style-type: none"> • Students make decisions about how to set up a problem. • Students solve problems and justify their reasoning. • Students note connections between one problem and another. 	<p>Standards for Mathematical Practice</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 	<ul style="list-style-type: none"> • The CCSS include Standards for Mathematical Content (different at each grade) and Standards for Mathematical Practice (recurring throughout the grades). • To master the grade-level content, students will need to rely on their understanding of a concept and not only on procedures. Standards for Mathematical Practice define how students develop mathematical understanding as they make sense of a problem, reason abstractly, construct arguments, model with mathematics, use tools strategically, attend to precision, and look for structure and repeated reasoning. • Standards for Mathematical Content that set an expectation of “understanding” are potential points of intersections between these standards and the Standards for Mathematical Practice. • Standards for Mathematical Practice are similar to the previous 1997 California Mathematical Reasoning standards and should be evident throughout future curricula, assessments, and professional development.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-two CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-two 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade Two

Operations and Algebraic Thinking (2.OA)

Represent and solve problems involving addition and subtraction.

1.	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). ¹
----	--

Add and subtract within 20.

2.	Fluently add and subtract within 20 by using mental strategies. ² By end of Grade 2, know from memory all sums of two one-digit numbers.
----	---

Work with equal groups of objects to gain foundations for multiplication.

3.	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
4.	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
<u>5.</u>	<u>Use repeated addition and counting by multiples to demonstrate multiplication.</u>
<u>6.</u>	<u>Use repeated subtraction and equal group sharing to demonstrate division.</u>

1. See the Glossary, Table 1, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

2. See Standard 1.OA.6 for a list of mental strategies.

Number and Operations in Base Ten (2.NBT)

Understand place value.

1.	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens—called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2.	Count within 1000; skip-count by 2s , 5s, 10s, and 100s.
3.	Read and write numbers to 1000 by using base-ten numerals, number names, and expanded form.
4.	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Use place value understanding and properties of operations to add and subtract.

5.	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6.	Add up to four two-digit numbers using strategies based on place value and properties of operations.
7.	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
7.1	<u>Use estimation strategies in computation and problem solving with numbers up to 1000.</u>
7.2	<u>Make reasonable estimates when adding or subtracting.</u>
8.	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
9.	Explain why addition and subtraction strategies work, using place value and the properties of operations. ³

Measurement and Data (2.MD)

Measure and estimate lengths in standard units.

1.	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2.	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

3. Explanations may be supported by drawings or objects.

Measure and estimate lengths in standard units. *(continued)*

3.	Estimate lengths using units of inches, feet, centimeters, and meters.
3.1	<u>Verify reasonableness of the estimate when working with measurements (e.g., closest inch).</u> (CA-Standard NS 6.1).
4.	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Relate addition and subtraction to length.

5.	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
6.	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, . . . , and represent whole-number sums and differences within 100 on a number line diagram.

Work with time and money.

7.	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. <u>Know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).</u>
8.	Solve word problems involving <u>combinations of</u> dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i>

Represent and interpret data.

9.	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
10.	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems ⁴ using information presented in a bar graph.

Geometry (2.G)**Reason with shapes and their attributes.**

1.	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. ⁵ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2.	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

4. See the Glossary, Table 1, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

5. Sizes are compared directly or visually, not compared by measuring.

Reason with shapes and their attributes. *(continued)*

- | | |
|----|---|
| 3. | Partition circles and rectangles into two, three, or four equal shares; describe the shares by using the words <i>halves</i> , <i>thirds</i> , <i>half of</i> , <i>a third of</i> , etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |
|----|---|

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Third-Grade Curriculum



What will my child learn in English language arts and mathematics in third grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance third-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of third grade. Each section includes a brief overview of what the student should have learned before entering third grade, followed by a description of the third-grade standards. Each subject concludes with a list of the third-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

A crucial goal for English language arts instruction is that all students leave third grade able to read fluently, effortlessly, independently, and enthusiastically. Reading and the development of student literacy are key components of academic success. The ability to read, write, and use language effectively is the essential foundation for each student's future. Students need to be competent in reading and English language arts to be able to obtain information in all content areas and communicate what they have learned. High-quality instruction is at the heart of all good language arts programs and nurtures both comprehension and fluency in word recognition.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what

students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are also some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus more on informational text, text-analysis skills for reading comprehension, opinion pieces, informational/explanatory compositions, and collaborative discussions about grade-level texts and topics.

This section provides an overview of the new CCSS for third-grade English language arts. It includes a review of the important English language arts skills and concepts from second grade (prerequisite skills) and guidance to ensure success for struggling readers, including English learners. A complete list of the third-grade CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the third-grade 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Third-Grade Students Should Know

In second grade, fluency, comprehension, and analysis were the focus of reading instruction. Students who mastered the basic features of reading achieved grade-level fluency in oral and silent reading. Students asked and answered clarifying questions about text (e.g., *who*, *what*, *why*) and used the features of text (e.g., headings, boldface type) to locate information in text. They learned to consider the author's purpose when analyzing informational text. Students used these strategies to better comprehend reading in all content areas. They also learned more sophisticated strategies for analyzing literature. For example, they compared and contrasted versions of the same story from different cultures.

In second grade, students wrote compositions using standard English conventions. They learned to use reference materials to locate information for their written compositions and oral reports. Students developed initial

skills in editing and revising text and applied those skills in their writing. They learned to give and follow multistep directions, provide descriptive details when telling stories or recounting events, and structure their oral presentations in a logical sequence. Students learned new vocabulary and academic language as they read and spoke about grade-level texts and topics. They learned to use dictionaries and glossaries to clarify the meaning of words and to check and correct their spelling. They used their knowledge of individual words to predict the meaning of compound words and their knowledge of prefixes to determine the meaning of a new word formed when a prefix was added to a known word.

What Students Learn in Third Grade

Third grade is often considered a pivotal year, as instruction in phonics is phased out of the formal curriculum. In third grade, increased emphasis is placed on vocabulary acquisition, comprehension strategies, text analysis, language conventions, and writing.

Third-grade students learn to use context as an independent vocabulary strategy. They learn to refer to information in the text when asking and answering questions about texts they have read. They apply analysis strategies to determine the theme or central message of text. They learn about subject and verb agreement and verb tenses and use that knowledge to write and speak in correct, complete sentences. As students learn more English language conventions and acquire new vocabulary, they practice them in their writing assignments.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

In third grade, students read and comprehend a wide variety of grade-level literature, including fables, folktales, and myths from around the world, as well as poetry and drama. They deepen their understanding of the elements of narrative text. Theme is added to the story elements students already know, which enhances their comprehension and appreciation of stories. As students add to their understanding of character as an element of a story, they may need prompts or structures to assist in the analysis of character. This framework, or map, may be a simple structure that makes visible and obvious the traits that students should recognize.

In both the 1997 California English language arts standards and the CCSS, comprehension skills focus on the plot, characters, and the author's

message or the theme of the text. Students learn to identify and comprehend basic plots of fairy tales, myths, folktales, legends, and fables from diverse cultures. They determine what characters are like based on how the author or illustrator portrays them. With instruction and practice, students learn to determine the underlying theme or the author's message in fiction. Students generate and respond to essential questions about a text and explicitly refer to information in the text to answer questions. Identifying answers in the text is one way students demonstrate their comprehension of the text.

The CCSS introduce additional skills and strategies for analyzing and comprehending literature. For example, one 1997 California English language arts standard calls for students to determine the underlying theme or author's message. A comparable standard from the CCSS builds on this basic analytical skill by asking students to explain how the message is conveyed through the key details of the text. Under the CCSS, students not only determine what characters are like based on what the author says about them, but also learn to describe the characters based on their traits, motives, and feelings. In addition, students learn how the characters' actions contribute to the sequence of events and to distinguish their own point of view from those of the characters.

Under the CCSS, students learn to distinguish between literal and nonliteral language and to determine the meaning of words and phrases in context. Students use academic language (e.g., *chapter*, *scene*, *stanza*) when writing or speaking about stories, dramas, and poems. They learn about the relationship between the illustrations and the words in a story and how both work together to create a mood or emphasize aspects of a character or setting. They compare and contrast stories written by one author that have the same or similar characters (e.g., in books from a series).

Reading Standards for Informational Text

As students are expected to read more informational text in English language arts and other third-grade subjects, comprehension becomes increasingly important. A student's success in developing complex reading comprehension skills depends on a progressive approach. Such an approach will at first use text in which the main idea is clearly and explicitly stated. The ideas follow a logical order and then progress to longer passages with more complex structures in which main ideas are not explicit. A similar progression from texts with familiar topics to texts with unfamiliar topics supports students' learning of comprehension strategies.

Both the 1997 California English language arts standards and the CCSS reflect the importance of comprehension and text-analysis skills for students' academic success. Students learn to identify the main idea and supporting details of informational texts and to recall the major points in

a text. They demonstrate their understanding of a text by asking questions about what they have read. Another way students demonstrate their understanding is to use information in the text as a basis for answers to questions about it. Students learn to locate information efficiently by using the features of text (e.g., titles, chapter headings, indexes).

The CCSS focus more on informational text than do the 1997 California English language arts standards and present additional skills and strategies for analyzing and comprehending informational text. These additional skills and strategies provide students with tools for a deeper analysis of informational texts, including history–social science, science, and technical texts. Students learn to recognize the relationship between a series of historical events, scientific ideas, or steps in a technical procedure and describe the relationship in language that pertains to time, sequence, and cause/effect. Students learn and use vocabulary development strategies to determine the meaning of general academic and domain-specific words and phrases in texts on third-grade topics. They use information from illustrations, such as maps and photographs, along with the text, to demonstrate their understanding (e.g., where, when, and why key events occur). Students also learn to identify and then describe the logical connection between particular sentences and paragraphs in a text (e.g., first, second, third in a sequence). They compare and contrast the most important points and key details presented in two texts on the same subject. They also learn to use digital search tools (e.g., key words, hyperlinks) to efficiently locate relevant information on a given topic.

Reading Standards in Foundational Skills

In third grade, the CCSS and the 1997 California English language arts standards focus less on phonics than in previous grades. Students who have learned strategies for analyzing words through explicit decoding instruction in earlier grades are ready to learn and apply more sophisticated word-recognition skills. For example, they learn how to decode multisyllabic words. Under the 1997 California English language arts standards, students also learn to use complex word families (e.g., *-ight*) to decode unfamiliar words.

The CCSS call for students to read grade-appropriate, irregularly spelled words and to decode words in both isolation and in text. Students also learn to decode words with common Latin suffixes. They learn to recognize and know the meaning of most common prefixes and derivational suffixes.

Third-grade students understand the basic features of language and apply their knowledge to reading literature and informational text. With practice, opportunities to read high-quality texts, and teacher modeling and feedback, students become fluent in silent and oral reading of grade-

level texts. They learn to read grade-level narrative and informational texts aloud with accuracy, appropriate pacing, and expression. The CCSS extend these expectations by also calling for students to read with purpose and understanding. Students are to use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

For students to become effective and persuasive writers, they need daily, explicit instruction in writing and time to practice and apply what they have learned. When skills, strategies, and structures are introduced progressively, students' writing improves throughout the school year. Students are able to extend their writing to other subjects if instruction in writing is purposefully connected to other academic areas and then incorporated into specific writing tasks.

Both the 1997 California English language arts standards and the CCSS call for students to write legibly in cursive with correct spacing, demonstrate a command of grade-level English language conventions, edit and revise their writing, and provide descriptive details in their writing pieces. Yet there are also many differences between the two sets of standards. The CCSS are more detailed and set higher expectations for third-grade students. The 1997 California English language arts standards focus on writing short narratives and personal and formal letters and invitations. Under the CCSS, students write opinion pieces and informational/explanatory texts in addition to narratives. They write routinely over both short (a single sitting, a day or two) and long (several days with time for research and revision) time frames for a range of discipline-specific tasks, purposes, and audiences.

The expectations for students' writing are clearly delineated in the CCSS. For example, students learn to write opinion pieces in which they introduce the topic, state an opinion, create an organizational structure that provides reasons supporting the opinion, and end with a concluding statement. Students also learn to use linking words and phrases (e.g., *because, therefore*) to connect the opinion to its supporting reasons. Students learn and practice similar skills and concepts when writing informational/explanatory texts that examine a topic and convey ideas and information clearly. They write narratives that develop experiences or events using descriptive details and a clear sequence of events.

Students learn to use technology to produce and publish writing as well as to interact and collaborate with others. Students also learn to use technology to gather information, take notes, and then sort into categories. They also use these information-gathering skills and strategies with print sources and practice them as they conduct short research projects.

Speaking and Listening

The connections across the language arts domains (reading, writing, speaking, and listening) have particular significance for developing students' speaking and listening skills. Students use the comprehension skills and strategies they learn by reading literature and informational texts to comprehend what a speaker has said. Their oral presentations reflect the organizational structures (a central idea, descriptive details, a conclusion) of both what they have read and their own writing. They learn to use the same English language conventions for speaking in complete, grammatically correct sentences that they use in their writing.

Both the 1997 California English language arts standards and the CCSS focus on students' listening and comprehension skills, their responses to questions and others' comments, and the organization of their oral presentations. Students not only learn to comprehend and explain what a speaker has said, but they also learn how to link their experiences and insights to those of a speaker and respond with appropriate elaboration and detail when asked about what they have heard. Students learn to plan and deliver presentations that are organized chronologically or around major points of information, follow a logical sequence, include concrete details to support the main idea, and provide a conclusion. They learn to use clear and specific vocabulary to communicate ideas and set a tone. Students also learn to read prose and poetry with fluidity, at an understandable pace, and in an engaging manner. They learn how to use visual displays or props (objects, pictures, charts) to clarify and enhance their oral presentations.

In addition, the CCSS emphasize collaborative discussions in which students practice both their speaking and their listening skills. Students engage in collaborative discussions on third-grade topics and texts with diverse partners and in different groupings (one-on-one, in groups, or teacher-led), building on others' ideas as well as expressing their own. They learn to explain their own ideas and understanding in light of the discussion and to ask questions to check their understanding of information given during the discussion. Third-grade students are expected to come to these discussions prepared, having read or studied the required material. Students learn to draw on their preparation and other knowledge of the topic to explore the ideas under discussion. They follow agreed-on rules for discussion, such as gaining the floor in respectful ways and speaking in turn about the topic under discussion. These collaborative conversations also provide students with opportunities to practice the academic language and domain-specific vocabulary from reading literature and informational text and listening to presentations.

Language

In third grade, students are expected to write and speak with a command of the conventions of standard English grammar and usage appropriate to their grade level. Students learn about subject-verb agreement, the proper use of verb tenses, and the correct use of pronouns and adjectives. They demonstrate their knowledge in their writing and speaking. They learn new rules for capitalization, punctuation, and spelling, though the specific rules they learn vary between the 1997 California English language arts standards and the CCSS. For example, under the 1997 California English language arts standards for third grade, students learn to punctuate dates, cities and states, and titles of books correctly. Under the CCSS, students learn to capitalize the appropriate words in a title.

There are more standards on English language conventions in the CCSS than in the 1997 California English language arts standards, and they cover a broader range of conventions in grammar, usage, capitalization, punctuation, and spelling. Students learn about and are able to explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general, as well as their functions in particular sentences. Students learn to use abstract nouns (e.g., *childhood*) and to use reciprocal pronouns correctly. They learn the difference between comparative and superlative adjectives and adverbs and to choose the correct form, depending on what is being modified. They learn to use coordinating and subordinating conjunctions and practice what they have learned by writing and speaking in compound and complex sentences.

Students learn and apply in their writing the correct spelling and use of possessives, spelling patterns and generalizations (e.g., word families, syllable patterns, ending rules), and conventional spelling for high-frequency and other studied words. They also learn to add suffixes to base words to form new words. They learn to choose words and phrases for effect. To support their narrative writing, students learn to use commas and quotation marks in dialogue. As students learn language conventions, they recognize the differences between the conventions of spoken and written standard English.

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover basic strategies for students to determine the meaning of words.

As they become better independent readers, students also acquire additional vocabulary on their own. Students learn to use glossaries and beginning dictionaries to understand the meaning of unknown words. They use sentence-level context as a clue to the meaning of a word. They also learn

to determine the meaning of new words formed by adding prefixes or suffixes to known words.

The 1997 California English language arts standards for vocabulary development call for students to use their knowledge of synonyms, antonyms, homophones, and homographs to determine the meaning of words. In addition, students learn about and can explain the hierarchical relationships among grade-level words (e.g., living things/animal/mammal/dog). The CCSS emphasize another kind of word relationship—real-life connections—as well as nuances in word meanings. To better understand the meaning of words, students identify the real-life connections between words and their use (e.g., describe people who are friendly or helpful). Students acquire and use words and phrases that signal spatial and temporal relationships. They also learn to distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew*, *believed*, *suspected*). A new skill for third-grade students is to distinguish between the literal and nonliteral meanings of words and phrases in context (e.g., *beat the clock*). Students use new conversational, academic, and domain-specific words in their writing and speaking, a practice that helps students remember the new words they have learned.

Extra Support for Struggling Readers

By the end of third grade, students are expected to be fluent, independent readers, reading with accuracy that supports their comprehension of literature and informational text. Students who are not proficient in word-analysis skills are likely to experience academic difficulties. Early screening and intervention address specific weaknesses in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they will become proficient in third-grade reading skills. Instructional support for students should include:

- flexible groupings for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- direct, explicit instruction in decoding and word-recognition skills;
- preteaching and reteaching of prefixes and suffixes;
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing. However, the greater cognitive demands of the academic program in third grade require that students move quickly to more advanced English vocabulary and language structures.

English learners should receive intensive instruction in vocabulary development and academic language to succeed in language arts and other content areas at their grade level. English learners benefit from instructional strategies such as preteaching concepts, vocabulary, and the grammatical features of key vocabulary, as well as opportunities to use new vocabulary in their reading, speaking, and writing assignments. They also benefit from instruction that includes context, but they must first understand the concepts presented in the text. They must know the grammatical features, idioms, and vocabulary words used to define or explain the unfamiliar word under study. Prior to reading, English learners may need additional activities that explain cultural references. English learners benefit from additional opportunities to read texts that contain similar vocabulary words and grammatical structures; such opportunities give students repeated exposure to the new words and structures being studied.

English learners who have limited academic experience and language skills require intensive, systematic instruction in oral and written language. Formal linguistic instruction for English learners includes learning common phrases, language patterns, and idiomatic expressions. In addition, instruction includes oral language development, with special attention given to phonological, morphological, syntactical, and semantic structures of English.

Teachers should not assume that English learners will acquire the rules of grammar governing the use of words at the same time they acquire the meaning of the words. To teach students grammar and functions of words, teachers provide students with explicit instruction, model words in speech and writing, encourage students to use new words in sentences, and, in longer text, provide students with corrective feedback on their use of new words. As students learn grammar and the functions of common nouns, pronouns, verbs, adverbs, and adjectives, they practice them in both speaking and writing. (For a more extensive list of the conventions of grammar,

refer to the “Transition to the Common Core State Standards with California Additions: Planning ELD Instruction” chart that follows.)

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available at the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions Planning ELD Instruction: Third Grade

Reading Standards for Literature	<ul style="list-style-type: none"> 5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections. 9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series). 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.
Reading Standards for Informational Text	<ul style="list-style-type: none"> 3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. 5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. 9. Compare and contrast the most important points and key details presented in two texts on the same topic. 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently.

Note: California additions are in bold typeface and underlined.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Third Grade *(continued)*

Reading Standards: Foundational Skills	<ol style="list-style-type: none"> 3. Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text. <ol style="list-style-type: none"> b. Decode words with common Latin suffixes. c. Decode multisyllable words. d. Read grade-appropriate irregularly spelled words. 4. Read with sufficient accuracy and fluency to support comprehension. <ol style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
Writing Standards	<ol style="list-style-type: none"> 1. Write opinion pieces on topics or texts, supporting a point of view with reasons. <ol style="list-style-type: none"> a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. d. Provide a concluding statement or section. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <ol style="list-style-type: none"> b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and more, but) to connect ideas within categories of information. d. Provide a concluding statement or section. 3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. <ol style="list-style-type: none"> b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure. 4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.) 5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3.)

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Third Grade *(continued)*

<p>Writing Standards <i>(continued)</i></p>	<p>6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p>8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p> <p>10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>
<p>Speaking and Listening Standards</p>	<p>1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade three topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</p> <p>c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p> <p>d. Explain their own ideas and understanding in light of the discussion.</p> <p>2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p> <p>4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p> <p>a. <u>Plan and deliver an informative/explanatory presentation on a topic that: organizes ideas around major points of information, follows a logical sequence, includes supporting details, uses clear and specific vocabulary, and provides a strong conclusion.</u></p> <p>5. Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</p>

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Third Grade (*continued*)

Language Standards

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - b. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
 - c. Use reciprocal pronouns correctly.**
 - e. Use abstract nouns (e.g., *childhood*).
 - g. Form and use the simple (e.g., *I walked; I walk; I will walk*) verb tenses.
 - h. Ensure subject-verb and pronoun-antecedent agreement.
 - i. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.
 - j. Use coordinating and subordinating conjunctions.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - b. Use commas in addresses.
 - c. Use commas and quotation marks in dialogue.
 - d. Form and use possessives.
 - e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
 - f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
 - g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Choose words and phrases for effect.
 - b. Recognize and observe differences between the conventions of spoken and written standard English.
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies.
 - a. Use sentence-level context as a clue to the meaning of a word or phrase.
 - c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Third Grade *(continued)*

**Language
Standards**
(continued)

- d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases **in all content areas.**
 - 5. Demonstrate understanding of word relationships and nuances in word meanings.
 - a. Distinguish the literal and non-literal meanings of words and phrases in context (e.g., *take steps*).
 - b. Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
 - c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).
-

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to the CCSS and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These grade-three CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-three 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade Three

Reading Standards for Literature

Key Ideas and Details

1.	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2.	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
3.	Describe characters in a story (e.g., their traits, motives, or feelings) and explain how their actions contribute to the sequence of events.

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language. <u>(See grade 3 Language standards 4–6 for additional expectations.)</u>
5.	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
6.	Distinguish their own point of view from that of the narrator or those of the characters.

Integration of Knowledge and Ideas

7.	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
8.	(Not applicable to literature)

Integration of Knowledge and Ideas *(continued)*

- | | |
|----|---|
| 9. | Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series). |
|----|---|

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently. |
|-----|---|

Reading Standards for Informational Text**Key Ideas and Details**

- | | |
|----|--|
| 1. | Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. |
| 2. | Determine the main idea of a text; recount the key details and explain how they support the main idea. |
| 3. | Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. |

Craft and Structure

- | | |
|----|---|
| 4. | Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area. (See grade 3 Language standards 4–6 for additional expectations.) |
| 5. | Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. |
| 6. | Distinguish their own point of view from that of the author of a text. |

Integration of Knowledge and Ideas

- | | |
|----|--|
| 7. | Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). |
| 8. | Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence). |
| 9. | Compare and contrast the most important points and key details presented in two texts on the same topic. |

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 2–3 text complexity band independently and proficiently. |
|-----|---|

Reading Standards: Foundational Skills

Phonics and Word Recognition

- | | |
|----|---|
| 3. | <p>Know and apply grade-level phonics and word analysis skills in decoding words both in isolation and in text.</p> <ol style="list-style-type: none"> a. Identify and know the meaning of the most common prefixes and derivational suffixes. b. Decode words with common Latin suffixes. c. Decode multisyllable words. d. Read grade-appropriate irregularly spelled words. |
|----|---|

Fluency

- | | |
|----|---|
| 4. | <p>Read with sufficient accuracy and fluency to support comprehension.</p> <ol style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. |
|----|---|

Writing Standards

Text Types and Purposes

- | | |
|----|---|
| 1. | <p>Write opinion pieces on topics or texts, supporting a point of view with reasons.</p> <ol style="list-style-type: none"> a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. b. Provide reasons that support the opinion. c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. d. Provide a concluding statement or section. |
| 2. | <p>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ol style="list-style-type: none"> a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. b. Develop the topic with facts, definitions, and details. c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. d. Provide a concluding statement or section. |
| 3. | <p>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ol style="list-style-type: none"> a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure. |

Production and Distribution of Writing

4.	With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5.	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 3.)
6.	With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

Research to Build and Present Knowledge

7.	Conduct short research projects that build knowledge about a topic.
8.	Recall information from experiences or gather information from print and digital sources; take brief notes on sources; and sort evidence into provided categories.
9.	(Begins in grade 4)

Range of Writing

10.	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
-----	---

Speaking and Listening Standards

Comprehension and Collaboration

1.	<p>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <ol style="list-style-type: none"> Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. Explain their own ideas and understanding in light of the discussion.
2.	Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3.	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

Presentation of Knowledge and Ideas

4.	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant descriptive details, speaking clearly at an understandable pace. a. <u>Plan and deliver an informative/explanatory presentation on a topic that: organizes ideas around major points of information, follows a logical sequence, includes supporting details, uses clear and specific vocabulary, and provides a strong conclusion.</u>
5.	Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
6.	Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 for specific expectations.)

Language Standards

Conventions of Standard English

1.	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. <u>Write legibly in cursive or joined italics, allowing margins and correct spacing between letters in a word and words in a sentence.</u> b. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. c. <u>Use reciprocal pronouns correctly.</u> d. Form and use regular and irregular plural nouns. e. Use abstract nouns (e.g., <i>childhood</i>). f. Form and use regular and irregular verbs. g. Form and use the simple (e.g., <i>I walked; I walk; I will walk</i>) verb tenses. h. Ensure subject-verb and pronoun-antecedent agreement.* i. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. j. Use coordinating and subordinating conjunctions. k. Produce simple, compound, and complex sentences.
2.	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize appropriate words in titles. b. Use commas in addresses. c. Use commas and quotation marks in dialogue. d. Form and use possessives. e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., <i>sitting, smiled, cries, happiness</i>).

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Conventions of Standard English (continued)

- | | |
|--|--|
| | <p>f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.</p> <p>g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</p> |
|--|--|
-

Knowledge of Language

- | | |
|----|---|
| 3. | <p>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Choose words and phrases for effect.*</p> <p>b. Recognize and observe differences between the conventions of spoken and written standard English.</p> |
|----|---|
-

Vocabulary Acquisition and Use

- | | |
|----|--|
| 4. | <p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 3 reading and content</i>, choosing flexibly from a range of strategies.</p> <p>a. Use sentence-level context as a clue to the meaning of a word or phrase.</p> <p>b. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., <i>agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat</i>).</p> <p>c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>company, companion</i>).</p> <p>d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases <u>in all content areas</u>.</p> |
| 5. | <p>Demonstrate understanding of word relationships and nuances in word meanings.</p> <p>a. Distinguish the literal and non-literal meanings of words and phrases in context (e.g., <i>take steps</i>).</p> <p>b. Identify real-life connections between words and their use (e.g., describe people who are <i>friendly</i> or <i>helpful</i>).</p> <p>c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., <i>knew, believed, suspected, heard, wondered</i>).</p> |
| 6. | <p>Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., <i>After dinner that night we went looking for them</i>).</p> |
-

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understanding, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for third grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations—Fractions, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s third-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for third-grade mathematics, including some highlights of how the third-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of some mathematical concepts and skills from grade two (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the grade-three CCSS for mathematics can be found at the end of this section. A complete list of the grade-three 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Third-Grade Students Should Know

When entering third grade, students who have met the second-grade CCSS for mathematics have an understanding of place value and can read, write, order, and compare whole numbers within 1,000. Students know how to add and subtract (within 1,000) and are fluent with these operations within 100. They can use addition and subtraction to solve one- and two-step word problems with unknowns in all positions (within 100) and know from memory all sums of two one-digit numbers.

At the start of third grade, students understand simple concepts of multiplication and division. They can use repeated addition and counting by multiples to demonstrate multiplication and can use repeated subtraction and equal group sharing to demonstrate division.

Students entering third grade are aware of standard units of measurements and can measure the length of an object by using appropriate tools. They can also relate addition and subtraction to length by representing positive whole numbers (from 0) and whole-number sums and differences within 100 on a number-line diagram. They know how to model and solve problems involving amounts of money and can use picture graphs and bar graphs to represent and interpret data.

By third grade, students have an understanding of plane and solid geometric shapes and can recognize and describe shapes by various attributes (e.g., the number and shape of faces). They understand the early concepts of area by partitioning rectangles into rows and columns and then counting the number of squares. They can also partition circles and rectangles into two, three, and four equal shares and know the associated vocabulary of fractions (e.g., *thirds*, *a third of*).

What Students Learn in Third Grade

Third-grade students deepen their understanding of place value and their knowledge of and skill with addition, subtraction, multiplication, and division of whole numbers. Students develop an understanding of fractions as numbers, concepts of area and perimeter of plane figures, and attributes of various shapes.

Operations and Algebraic Thinking

The 1997 California mathematics standards and the CCSS foster an understanding of the relationship between multiplication and division. Third-graders fluently multiply and divide (within 100) and use simple multiplication and division to solve word problems (using drawings and equations with a symbol for the unknown number to represent the problem). They understand division as an unknown-factor problem (e.g., find $32 \div 8$ by finding the number that makes 32 when multiplied by 8) and use the inverse relationship between multiplication and division to compute

and check results. Students apply their knowledge and skills with the four operations (addition, subtraction, multiplication, and division) to solve word problems.

By the end of third grade, students will know from memory all products of numbers from 1 to 9 (the multiplication tables for 2s and 5s are introduced at second grade in the 1997 California standards). Students discover that the associative and commutative laws reduce the number of multiplication facts they need to learn. For example, if a student knows 5×9 , then they also know 9×5 .

With full implementation of the CCSS, multiplication and division of a whole number (with up to four digits) and a one-digit whole number (e.g., $3,671 \times 3 = \underline{\quad}$ or $1,035 \div 5 = \underline{\quad}$) will be covered in fourth grade, a third-grade topic in the 1997 California standards.

Number and Operations in Base Ten

In both the 1997 California mathematics standards and the CCSS, third-grade students extend their understanding of place value to include numbers with four digits. They round whole numbers to the nearest 10 or 100, a critical prerequisite for working estimation problems. With full implementation of the CCSS, rounding numbers to the nearest thousands will be covered in fourth grade.

Students also apply their understanding of place value as they fluently add and subtract (within 1,000) numbers in which regrouping or composing a ten (i.e., carrying and borrowing) is required in more than one column. Students may need extra practice solving problems that require regrouping across columns with zeros, which can be confusing. With full implementation of the CCSS, addition and subtraction with two whole numbers (within 1,000–10,000) will be covered in fourth grade.

Number and Operations—Fractions

Student proficiency with fractions is essential to success in algebra at later grades. In third grade, both the 1997 California mathematics standards and the CCSS develop an understanding of fractions as numbers. Students use visual models to represent fractions as parts of a whole. They also use visual models and a number line to represent, explain, and compare unit fractions (fractions with a numerator 1), equivalent fractions (e.g., $1/2 = 2/4$), whole numbers as fractions (e.g., $3 = 3/1$), and fractions with the same numerator or the same denominator ($3/3$).

With full implementation of the CCSS, third-grade students will learn to recognize, name, and compare fractions (a second-grade topic in the 1997 California mathematics standards) and use a number line to represent positive fractions (a fourth-grade topic in the 1997 California mathematics

standards). Operations with decimals will be introduced in fifth grade (a third-grade topic in the 1997 California mathematics standards).

Measurement and Data

In third grade, the 1997 California mathematics standards and the CCSS focus on measurement. Students measure lengths (using a ruler), liquid volume (using standard units), and the area of plane figures (by counting unit squares). Students demonstrate an understanding of fractions as they measure lengths by using rulers marked with halves and fourths of an inch. Students solve problems involving the perimeter of polygons. They relate the concept of area to the operations of multiplication and division and show that the area of a rectangle can be found by multiplying the side lengths.

With full implementation of the CCSS, the probability of a chance event and simple predictions, a third-grade topic in the 1997 California mathematics standards, will be introduced and developed in seventh grade. Simple unit conversions (for example, centimeters to meters), a third-grade topic in the 1997 California mathematics standards, will be studied in fifth grade as students use conversions to solve problems.

Geometry

The 1997 California mathematics standards and the CCSS focus on the attributes of shapes in third grade. Students compare common geometric shapes (e.g., rectangles and quadrilaterals) based on common attributes (e.g., having four sides). Students also relate their work with fractions to geometry as they partition shapes into parts with equal areas and represent each part as a unit fraction of the whole.

With full implementation of the CCSS, right angles in geometric shapes, a third-grade topic in the 1997 California mathematics standards, will be covered in fourth grade, beginning with right triangles.

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first, second, last, before, every, each, more, and equal*. Students may be unfamiliar with *sum, difference, solve, length, and value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the *face* of a clock).
- The place value of some numbers between 10 and 20 is not obvious from the names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than, less than, most often, least often*), or position words (*behind, below, in front of, to the right of, to the left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Transition to the Common Core State Standards

The following chart highlights a few topics that will continue to be addressed at the same grade level and some changes to be considered as California progresses toward full implementation of the third-grade CCSS for mathematics. The chart includes the column heading “Overview of Standards.” For the 1997 California mathematics standards, this information is from the “strands” (e.g., Number Sense) and the “overarching” standards (e.g., Number Sense 1.0) in third grade. For the CCSS, the column lists the “domains” (e.g., Operations and Algebraic Thinking) and the “cluster headings” for the standards (e.g., Represent and solve problems involving multiplication and division) in third grade.

The chart does not, and is not intended to, illustrate all of the differences between the two sets of standards—it is merely a beginning point for more in-depth discussion by teachers and other educators on how instruction may change.

The transition chart is followed by a complete set of the CCSS, with California additions, for third grade and then a table of the CCSS domains for kindergarten through grade six.

A Quick Look: Transition to the Common Core State Standards

Mathematics: Grade Three

Overview of Standards		Highlights
1997 California Mathematics Standards*	CCSS	
<p>Algebra and Functions</p> <ul style="list-style-type: none"> Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships. Students represent simple functional relationships. <p>Number Sense</p> <ul style="list-style-type: none"> Students understand the place value of whole numbers. Students calculate and solve problems involving addition, subtraction, multiplication, and division. Students understand the relationship between whole numbers, simple fractions, and decimals. 	<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> Represent and solve problems involving multiplication and division. Understand properties of multiplication and the relationship between multiplication and division. Multiply and divide within 100. Solve problems involving the four operations, and identify and explain patterns in arithmetic. <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> Use place value understanding and properties of operations to perform multi-digit arithmetic. 	<ul style="list-style-type: none"> Understand and use multiplication and division within 100 to solve word problems; fluently multiply and divide within 100 (multiply and divide a multi-digit number [with up to four digits] and a one-digit number moves from grade three to grade four in the CCSS). ▲** Determine an unknown whole number in a multiplication or division equation relating three whole numbers (e.g., $8 \times ? = 48$). Solve two-step word problems using the four operations and an equation with a letter standing for an unknown quantity. Memorize all products of two one-digit numbers (memorize the multiplication tables for 2s and 5s moves from grade two to grade three in the CCSS). ▲ <ul style="list-style-type: none"> Understand that a four-digit number represents amounts of thousands, hundreds, tens, and ones. Add and subtract fluently within 1,000 and multiply one-digit numbers by multiples of 10 in the range 10–90. Round whole numbers to the nearest 10 or 100 (round numbers to the nearest 1,000 moves from grade three to grade four in the CCSS). ▲

*The 1997 California mathematics standards will continue to be assessed through the STAR system (in grades two through eleven) until at least 2014.

**The ▼ symbol indicates that all or part of a concept in the 1997 California standards has moved to a lower grade in the CCSS; the ▲ symbol indicates movement to a higher grade. Listings without a symbol indicate that a concept will continue to be taught at the current grade level.

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade Three

Overview of Standards		Highlights
<p>1997 California Mathematics Standards*</p> <p>Number and Operations—Fractions</p> <ul style="list-style-type: none"> Develop understanding of fractions as numbers. 	<p>CCSS</p>	<ul style="list-style-type: none"> Understand a fraction $1/b$ as the quantity formed by one part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$ (introduction to fractions moves from grade two to grade three in the CCSS). ▲ Represent fractions on a number line diagram (moves from grade four to grade three in the CCSS). ▼ Compare two fractions (with the same numerator or the same denominator) and recognize and generate simple equivalent fractions (e.g., $1/2 = 2/4$ and $4/6 = 2/3$) using visual fractional models. Add and subtract simple fractions (moves from grade three to grade four in the CCSS). ▲ Operations with decimals (moves from grade three to grade four in the CCSS). ▲
<p>Measurement and Geometry</p> <ul style="list-style-type: none"> Students choose and use appropriate units and measurement tools to quantify the properties of objects. Students describe and compare the attributes of plane and solid geometric figures and use their understanding to show relationships and solve problems. 	<p>Measurement and Data</p> <ul style="list-style-type: none"> Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Represent and interpret data. Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 	<ul style="list-style-type: none"> Measure and estimate liquid volumes and masses of objects using standard units (work with unit conversions moves from grade three to grade five in the CCSS). ▲ Represent data in graphs (scaled picture graph or bar graph) and use the information to solve problems (use of data from picture graphs to solve addition and subtraction problems moves from grade two to grade three in the CCSS). ▲ Measure areas by counting unit squares and show that the area is the same as would be found by multiplying the side lengths.

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade Three

Overview of Standards		CCSS	Highlights
<p>1997 California Mathematics Standards*</p> <p>Statistics, Data Analysis, and Probability</p> <ul style="list-style-type: none"> Students conduct simple probability experiments by determining the number of possible outcomes and make simple predictions. 	<ul style="list-style-type: none"> Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. 	<ul style="list-style-type: none"> Solve problems involving perimeters of polygons. Introduce probability of a chance event and simple predictions (moves from grade three to grade seven in the CCSS). ▲ 	
<p>Mathematical Reasoning</p> <ul style="list-style-type: none"> Students make decisions about how to approach problems. Students use strategies, skills, and concepts in finding solutions. Students move beyond a particular problem by generalizing to other situations. 	<p>Geometry</p> <ul style="list-style-type: none"> Reason with shapes and their attributes. 	<ul style="list-style-type: none"> Understand shapes may share attributes that define a larger category. Partition shapes into parts with equal areas to represent a unit fraction of the whole. Identify right angles in geometric shapes (moves from grade three to grade four in the CCSS). ▲ 	
<p>Mathematical Reasoning</p> <ul style="list-style-type: none"> Students make decisions about how to approach problems. Students use strategies, skills, and concepts in finding solutions. Students move beyond a particular problem by generalizing to other situations. 	<p>Standards for Mathematical Practice</p> <ol style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Use appropriate tools strategically. Attend to precision. 	<ul style="list-style-type: none"> The CCSS include Standards for Mathematical Content (different at each grade) and Standards for Mathematical Practice (recurring throughout the grades). To master the grade-level content, students will need to rely on their understanding of a concept and not only on procedures. Standards for Mathematical Practice define how students develop mathematical understanding as they make sense of a problem, reason abstractly, construct arguments, model with mathematics, use tools strategically, attend to precision, and look for structure and repeated reasoning. 	

A Quick Look: Transition to the Common Core State Standards (continued)

Mathematics: Grade Three

Overview of Standards		Highlights
<p>1997 California Mathematics Standards*</p>	<p>CCSS</p> <p>7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.</p>	<ul style="list-style-type: none"> Standards for Mathematical Content that set an expectation of “understanding” are potential points of intersection between these standards and the Standards for Mathematical Practice. Standards for Mathematical Practice are similar to the previous 1997 California Mathematical Reasoning standards and should be evident throughout future curricula, assessments, and professional development.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-three CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-three 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade Three

Operations and Algebraic Thinking (3.OA)

Represent and solve problems involving multiplication and division.

1.	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each, or 7 groups of 5 objects each . For example, describe a context in which a total number of objects can be expressed as 5×7 .
2.	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.
3.	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ¹
4.	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$.

Understand properties of multiplication and the relationship between multiplication and division.

5.	Apply properties of operations as strategies to multiply and divide. ² Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)
----	---

1. See the Glossary, Table 2, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

2. Students need not use formal terms for these properties.

Understand properties of multiplication and the relationship between multiplication and division. *(continued)*

- | | |
|----|---|
| 6. | Understand division as an unknown-factor problem. <i>For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.</i> |
|----|---|
-

Multiply and divide within 100.

- | | |
|----|--|
| 7. | Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. |
|----|--|
-

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

- | | |
|----|--|
| 8. | Solve two-step word problems using the four operations. Represent these problems by using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers by using mental computation and estimation strategies including rounding. ³ |
| 9. | Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. <i>For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.</i> |
-

Number and Operations in Base Ten (3.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.⁴

- | | |
|------------|---|
| 1. | Use place value understanding to round whole numbers to the nearest 10 or 100. |
| 1.1 | <u>Understand that the four digits of a four-digit number represent amounts of thousands, hundreds, tens, and ones; e.g., $3,706 = 3000 + 700 + 6 = 3$ thousands, 7 hundreds, 0 tens, and 6 ones.</u> |
| 2. | Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. |
| 3. | Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations. |
-

3. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

4. A range of algorithms may be used.

Number and Operations—Fractions (3.NF)⁵

Develop understanding of fractions as numbers.

1.	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
2.	<p>Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <p>a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.</p> <p>b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.</p>
3.	<p>Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p>a. Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line. Recognize that equivalents are only valid when the two fractions refer to the same whole.</p> <p>b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.</p> <p>c. Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.</p> <p>d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>e. Know and understand that 25 cents is $1/4$ of a dollar, 50 cents is $1/2$ of a dollar, and 75 cents is $3/4$ of a dollar.</p>

Measurement and Data (3.MD)

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

1.	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
----	---

5. Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. *(continued)*

- | | |
|----|--|
| 2. | Measure and estimate liquid volumes and masses of objects by using standard units of grams (g), kilograms (kg), and English Units (oz, lb.) , and liters (l). ⁶ Add, subtract, multiply, or divide to solve one-step word problems involving masses or volume that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. ⁷ |
|----|--|
-

Represent and interpret data.

- | | |
|----|---|
| 3. | Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. <i>For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</i> |
| 4. | Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters. |
-

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

- | | |
|----|---|
| 5. | Recognize area as an attribute of plane figures and understand concepts of area measurement. <ol style="list-style-type: none"> a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. |
| 6. | Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). |
| 7. | Relate area to the operations of multiplication and addition. <ol style="list-style-type: none"> a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems. |
-

6. Excludes compound units such as cm^3 and finding the geometric volume of a container.

7. Excludes multiplicative comparison problems (problems involving notions of “times as much”; see the Glossary, Table 2, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

- | | |
|----|--|
| 8. | Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. |
|----|--|

Geometry (3.G)

Reason with shapes and their attributes.

- | | |
|----|--|
| 1. | Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. |
| 2. | Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.</i> |

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Fourth-Grade Curriculum



What will my child learn in English language arts and mathematics in fourth grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance fourth-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of fourth grade. Each section includes a brief overview of what the student should have learned before entering fourth grade, followed by a description of the fourth-grade standards. Each subject concludes with a list of the fourth-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

Students in fourth grade are in a new stage of reading and learning. Traditionally, fourth grade marks the transition from learning to read (in kindergarten through grade three) to reading to learn (in fourth grade and beyond). This stage can be categorized as reading and learning for life, a stage in which students begin to acquire and apply a full and complex range of lifelong language and literacy skills. From fourth grade on, students must be able to recognize increasingly complex words accurately and automatically in grade-level text and materials ranging from classical literature to online information. They must also develop their vocabulary knowledge and skills in more sophisticated ways, including through their own research and by reading informational texts in fourth-grade content areas.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are also some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus more on informational text, text-analysis skills for reading comprehension, opinion pieces and informational/explanatory compositions, and collaborative discussions about grade-level texts and topics.

This section provides an overview of the new CCSS for fourth-grade English language arts. It includes a review of the important English language arts skills and concepts from third grade (prerequisite skills) and guidance to ensure success for struggling readers, including English learners. A complete list of the fourth-grade CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the fourth-grade 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Fourth-Grade Students Should Know

Instruction in third grade emphasized vocabulary acquisition, comprehension strategies, text analysis, language conventions, and writing. By the end of third grade, instruction in phonics was no longer a focal point of the formal curriculum. Students learned foundational decoding skills and basic features of language and applied their knowledge to reading literature and informational text. Students who mastered the skills and strategies taught in kindergarten through third grade are able to read fluently, effortlessly, and independently.

In third grade, students learned to use context as an independent vocabulary development strategy. They referred to information in the text when asking and answering questions about text they read and applied

text-analysis strategies to determine the theme or central message of text. They learned about subject and verb agreement and verb tenses and used that knowledge to write and speak in correct, complete sentences. As students learned more English language conventions and acquired new vocabulary, they used this knowledge in their writing assignments and discussions about grade-level topics.

What Students Learn in Fourth Grade

Students in fourth grade read a wide range of literature in different genres and reflecting different cultures and times. They study in greater depth the structural elements of poems, prose, and dramas than in previous years and learn to summarize text in a concise manner. As they analyze informational text, students consider its overall structure and organization, the differences between first- and secondhand accounts, and how the author uses evidence to support points in the text. There is more focus on academic language and domain-specific vocabulary, which supports reading and listening comprehension, writing, and speaking. Students learn and practice a range of strategies for acquiring vocabulary independently.

In their writing, students learn to create organizational structures that support their purpose; write longer, detailed informational/explanatory texts with headings, illustrations, definitions, and quotations; and write narratives that orient the reader to the situation and unfold in a natural sequence of events. They learn to use technology to find information, interact and collaborate with others, and produce and publish writing. Students participate in collaborative discussions on fourth-grade topics and texts, paraphrase information presented in diverse media and formats, and deliver formal narrative presentations. They learn the conventions of standard English grammar and usage, capitalization, punctuation, and spelling to support their writing and speaking. These conventions include the use of prepositional phrases and progressive verb tenses, recognition and correction of fragments and run-ons, and appropriate use of commas and quotation marks to indicate direct speech.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

In fourth grade, students read and analyze stories, dramas, and poems. As they become more proficient readers, they appreciate the richness and

complexity of the materials they read. In both the 1997 California English language arts standards and the CCSS, reading comprehension is based on students' understanding and analysis of the structures and elements of literary works.

Students in fourth grade deepen their learning about the elements of narratives (e.g., plot, setting, characters, theme) and describe them in more depth than in previous grades. Students explore a character's thoughts and motivations to determine the reasons for that character's actions. They learn the definitions of figurative language (e.g., simile, metaphor) and to recognize its use in literature. Students use a compare-and-contrast strategy to find similarities between stories from different cultures and to comprehend the connection between their themes.

The CCSS introduce additional skills and strategies for analyzing and comprehending literature. For example, one 1997 California English language arts standard calls for students to describe the structural differences of various forms of imaginative literature (e.g., myths, legends, fairy tales). A comparable standard from the CCSS builds on this analytical skill by asking students to explain the major differences between poems, dramas, and prose and refer to the structural elements of poems (e.g., verse, meter) and dramas (e.g., cast of characters, stage directions) in their speaking and writing.

Under the CCSS, students learn the difference between first- and third-person narrations. They use their understanding of these differences to compare and contrast the point of view from which stories are narrated. Students also make connections between the text of a story or drama and a visual or oral presentation of the same story or drama, identifying where the specific descriptions in the presentation reflect the text.

Reading Standards for Informational Text

Comprehension of grade-level informational text focuses on the structure of informational text and using facts, details, and examples from the text to understand its content. At this new stage of reading to learn, students read more informational text in English language arts and other grade-level subject areas than in earlier grades and become more independent readers. As students read more across the content areas, reading comprehension plays an essential role in their academic success.

Under both the 1997 California English language arts standards and the CCSS, students talk and write about informational text in terms of its overall structure (e.g., compare and contrast, cause and effect, chronology). They build on their knowledge of comprehension skills and strategies from previous grades, such as identifying the main idea and significant details, reading for different purposes, distinguishing between cause and effect, and comparing information on the same topic in two or more texts.

The 1997 California English language arts standards also call for students to distinguish between fact and opinion in informational (expository) text and to evaluate new information and hypotheses by testing them against known information and ideas. A related CCSS asks students to explain how an author uses reasons and evidence to support particular points in a text.

The CCSS incorporate analytical skills and strategies not found in the 1997 California English language arts standards. For example, students compare and contrast a first- and secondhand account of the same event and describe the differences in focus and the information provided. Students also learn to integrate information from two texts on the same topic in order to write or speak more knowledgeably. They learn to interpret information presented in charts, graphs, diagrams, timelines, animations, and interactive elements on Web pages. They also learn and can explain how this kind of information, which is presented visually, orally, or quantitatively, contributes to their understanding of the text.

Reading Standards in Foundational Skills

In fourth grade, students who are fluent and accurate readers make the transition from learning to read to reading to learn in subject-matter content. Both the 1997 California English language arts standards and the CCSS call for students to be able to decode words fluently and accurately. Students in fourth grade decode words by using their knowledge of all letter-sound correspondences, syllabication patterns, affixes, and root words.

Fluency expectations continue as students learn to read grade-level narrative, prose, poetry, and informational text with accuracy, appropriate pacing, and expression. The CCSS expand on these expectations by also calling for students to read with purpose and understanding and use context to confirm or self-correct word recognition and understanding.

Writing

Students in fourth grade use all stages of the writing process—prewriting, drafting, revising, and editing—to produce clear, coherent writing suited to the purpose and audience. Students develop proficiency in each form of writing by having opportunities to practice their writing and by receiving prompt feedback from their teacher. They learn about the links between reading different types of text structures and writing using those same structures, drawing on what they have read as examples of how to write.

The 1997 California English language arts standards and the CCSS call for students in fourth grade to write multiparagraph texts with a central idea, supporting details, and a concluding paragraph. Students learn to use

the organizational structure (e.g., cause and effect, chronological order) that best fits the purpose of their composition. They learn and use keyboarding and other basic computer skills to produce and publish at least one page of writing in a single sitting.

Students learn to draw evidence from literary or informational texts to support their main idea with facts, details, and explanations. They use multiple sources of information, including online resources. They also learn to quote and paraphrase relevant information and to cite the source of information correctly.

Differences between the 1997 California English language arts standards and the CCSS in fourth grade are primarily due to the emphasis on different genres. Under the 1997 California English language arts standards, students write narratives, responses to literature, and reports in which they frame a central question about an issue or situation. Under the CCSS, students write opinion pieces, informative/explanatory texts, and narratives. They also conduct short research projects that build knowledge through investigation of different aspects of a topic.

The expectations for students' writing are explicitly delineated in the CCSS. For example, students learn to write informational/explanatory texts in which they group related information into paragraphs and use formatting (e.g., headings), illustrations, and multimedia to aid comprehension. They learn how to link ideas within categories of information using words or phrases such as *another*, *because*, and *for example*. They use domain-specific vocabulary to explain or provide information about a topic, as well as how to use precise language in their informational/explanatory writing.

Students practice taking notes, paraphrasing, and categorizing the information they gather from print and digital sources. They also learn how to develop a list of their resources. Through the school year, students write routinely over both extended time frames (several days or weeks with time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two). They write for a range of discipline-specific tasks, purposes, and audiences on topics and texts in all fourth-grade subjects.

Speaking and Listening

Fourth-grade students listen critically to speakers and media presentations, summarize what they have heard, make narrative presentations, and ask and answer questions with appropriate elaboration. They learn to recognize that the structures used in making oral presentations (e.g., reporting on a topic or text, telling a story) are the same ones found in the literature and informational text they read and in their own writing. In their oral presentations, they see how a central idea or theme is supported by facts, descriptive details, or observations in the same manner that a central idea

or theme is supported in their writing. Students correctly use the same conventions of standard English when speaking and writing.

Both the 1997 California English language arts standards and the CCSS focus on students' listening and comprehension skills and their formal oral-presentation skills. Students learn to ask thoughtful questions about the topic or text being discussed and to respond to questions with relevant information. They learn to paraphrase the major ideas and supporting evidence of a text read aloud to them or in a formal presentation. Students also learn to plan and deliver narrative presentations that relate ideas, observations, or recollections. The presentations also provide a clear context and insight into why an event or experience is memorable. Students learn how to report on a topic or text, tell a story, or recount an experience in an organized manner, using facts and details to support main ideas or themes. Students practice speaking clearly with pacing that supports understanding.

The 1997 California English language arts standards emphasize skills related to the delivery of oral presentations. For example, students learn to use volume, pitch, phrasing, pace, modulation, and gestures to enhance meaning. They also learn to emphasize significant points in ways that help the listener to follow and understand the important concepts. Students practice using clear diction, tempo, volume, and phrasing when reciting brief poems, soliloquies, or dramatic dialogues. Under the 1997 California English language arts standards, students also learn to give precise directions and instructions. They also learn how language usage (e.g., sayings and expressions) reflects regions and cultures.

The CCSS emphasize collaborative discussions on fourth-grade topics and texts, with diverse partners, and in different groupings (one-on-one, in groups, or teacher-led). Students learn and practice both speaking and listening skills in collaborative conversations. They build on others' ideas and express their own ideas clearly, and they learn how to explicitly draw on materials they have read or studied to explore the topic or ideas under discussion. Students demonstrate their understanding of the importance of each person's contribution to the group discussion by following agreed-on rules and carrying out their assigned roles. They learn to make comments that contribute to the conversation and link to the remarks of others and can also identify the key ideas expressed during the discussion and explain their own ideas to others.

The CCSS also call for students to learn how and when it is appropriate to use audio recordings and visual displays to enhance the development of the main ideas or themes of a presentation. They learn to paraphrase information presented in diverse media and formats, including visually, quantitatively, and orally. Students also learn to differentiate between situations that call for formal English (e.g., presenting ideas) and those where informal discourse is appropriate (e.g., small-group discussion).

Language

Students are expected to demonstrate in their writing and speech a command of the conventions of standard English grammar and usage, spelling, capitalization, and punctuation appropriate to their grade level. They demonstrate their knowledge in their writing and speaking. They should also write fluidly and legibly in cursive or joined italics.

Students in fourth grade learn new rules for grammar and usage, capitalization, punctuation, and spelling, though the specific rules they learn vary between the 1997 California English language arts standards and the CCSS. For example, under the 1997 California English language arts standards, students learn to use simple and compound sentences in writing and speaking. Under the CCSS, students not only learn to produce complete sentences, but also to recognize and correct fragments and run-ons.

There are more standards for English language conventions in the CCSS than in the 1997 California English language arts standards, and they cover a broader range of conventions in grammar and usage, capitalization, punctuation, and spelling. Students learn how to use interrogative, relative pronouns (*who, whose, whom, which, that*), relative adverbs (*where, when, why*), and progressive verb tenses (e.g., *I was walking, I am walking, I will be walking*). They learn the conventional patterns for the order of adjectives in sentences (e.g., *a small red bag* rather than *a red small bag*). Students learn to use commas and quotation marks to indicate direct speech and extracts from a text. They consult references to help them spell grade-level words correctly.

Students use their knowledge of language conventions when writing, speaking, reading, and listening. They can use punctuation for effect and choose words and phrases to convey ideas precisely. They also learn to recognize frequently confused words (e.g., *to, too, two*) and to select the correct word when writing. As students learn the conventions of standard English, they also learn when to use formal English and when informal discourse is appropriate.

Understanding academic language and domain-specific vocabulary takes on importance in fourth grade as students read to learn. Students read more independently than in previous grades and may be reading in a broader range of subjects. Extensive independent reading is a primary means for increasing students' vocabulary in fourth grade and beyond. To comprehend grade-level literature and informational texts across the content areas, students need strategies to understand the words they read and hear.

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS,

standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover a range of strategies for vocabulary acquisition. Students learn and use common Greek and Latin roots as clues to the meaning of complex words (e.g., *telegraph*, *photograph*, *autograph*). They use a thesaurus to determine the meaning of related words and concepts and expand their knowledge of similes and metaphors to understand and explain words and phrases in context (e.g., *pretty as a picture*). Students also learn to recognize and to explain the meaning of common idioms. They learn to apply their knowledge of antonyms and synonyms to understand words by relating them to opposites or to words with similar meanings.

The CCSS focus more on the use of reference materials. In addition to using a thesaurus to determine the meaning of related words and concepts, students learn to use dictionaries and glossaries, both print and digital, to find the pronunciation of key words and phrases and to identify alternate word choices in all content areas. Students also expand their use of context clues (e.g., definitions, examples, restatements in text) to determine the meaning of words and phrases. They accurately incorporate words and phrases that signal precise actions (e.g., *quizzed*, *whined*, *stammered*), emotions, or states of being. They also learn and use words that are basic to fourth-grade topics and texts. For example, in a discussion about rocks and minerals, students use words such as *igneous*, *sedimentary*, *metamorphic*, *calcite*, and *feldspar*.

Extra Support for Struggling Readers

By the end of fourth grade, students are expected to be fluent, independent readers, reading with accuracy that supports their comprehension of literature and informational text. Students who are not proficient in word-analysis skills are likely to experience academic difficulties. Early screening and intervention address specific weaknesses in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they will become proficient in fourth-grade reading skills. Instructional support for students should include:

- flexible groupings for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- intensive, explicit instruction in decoding and word-recognition skills, which may include materials at the reading level of students;
- preteaching and extended correct practice with prefixes and suffixes;
- preteaching and extended correct practice with Greek and Latin roots;

- direct, explicit instruction in language development to address accurate use of grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

For those students whose reading achievement is two or more years below grade level, placement in an Intensive Intervention Program in Reading/Language Arts should be considered. These intensive, stand-alone, accelerated programs are designed to address the instructional needs of students in grades four through eight whose reading achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rlaadoptionlist.asp>.)

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and their primary language, as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing.

The transition from learning to read to reading to learn subject-matter content calls for students to use and understand more sophisticated academic and content-specific vocabulary and language structures. English learners should receive intensive instruction in vocabulary development and academic language to succeed in language arts and other subjects at their grade level. English learners benefit from teachers' preteaching concepts, vocabulary, and the grammatical features of key vocabulary and opportunities to use new vocabulary in reading, speaking, and writing assignments. English learners also benefit from explicit instruction on how to write cohesive text by using transition phrases (e.g., *first, second, next, therefore, in conclusion*) and combining sentences. Students practice and learn to use grammatical structures such as relative clauses (e.g., *I like the girl who lives on the corner*), conditional statements (e.g., *If I were you, I would not do that*), and subordinate clauses (e.g., *She received good grades*

because she worked hard). Because English learners are still developing proficiency in English, they benefit from teacher feedback on their writing and on their grammar, usage, and so forth. Peer editing and revision require special planning considerations.

English learners develop oral and written language through formal linguistic instruction. They learn common phrases, idiomatic expressions, and language patterns, as well as phonological, morphological, syntactical, and semantic structures of English. As students learn the rules of English grammar and the functions of relative pronouns, adverbs, and prepositional phrases, they benefit from opportunities to practice speaking and writing and from teacher feedback. (For a more extensive list of the conventions of grammar, refer to the “Transition to the Common Core State Standards with California Additions: Planning ELD Instruction” chart that follows.)

For those students whose academic achievement is two or more years below grade level, placement in an Intensive Intervention Program for English Learners should be considered. These intensive, stand-alone, accelerated programs are designed for English learners in grades four through eight whose academic achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs for English Learners, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rlaadoptionlist.asp>.)

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available at the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fourth Grade

Reading Standards for Literature	<p>4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). <u>(See grade 4 Language standards 4-6 for additional expectations.)</u></p> <p>7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.</p> <p>9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.</p> <p>10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>
Reading Standards for Informational Text	<p>3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.</p> <p>6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.</p> <p>7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.</p> <p>9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.</p> <p>10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>
Reading Standards: Foundational Skills	<p>4. Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read on-level text with purpose and understanding.</p> <p>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>

Note: California additions are in bold typeface and underlined.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fourth Grade *(continued)*

Writing Standards	<ol style="list-style-type: none"> 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. <ol style="list-style-type: none"> a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). d. Provide a concluding statement or section related to the opinion presented. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <ol style="list-style-type: none"> a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. 3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. <ol style="list-style-type: none"> b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events. 5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4.)
--------------------------	--

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fourth Grade *(continued)*

Writing Standards
(continued)

6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.
7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes, **paraphrase**, and categorize information; and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
 - a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”).
 - b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening Standards

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others’ ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
 - b. Follow agreed-upon rules for discussions and carry out assigned roles.
 - c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
 - d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Identify the reasons and evidence a speaker **or media source** provides to support particular points.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fourth Grade *(continued)*

Speaking and Listening Standards <i>(continued)</i>	<ol style="list-style-type: none"> 5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. 6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 for specific expectations.)
Language Standards	<ol style="list-style-type: none"> 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. <ol style="list-style-type: none"> b. Use interrogative, relative pronouns (<i>who, whose, whom, which, that</i>) and relative adverbs (<i>where, when, why</i>). c. Form and use the progressive (e.g., <i>I was walking; I am walking; I will be walking</i>) verb tenses. d. Use modal auxiliaries (e.g., <i>can, may, must</i>) to convey various conditions. e. Order adjectives within sentences according to conventional patterns (e.g., <i>a small red bag</i> rather than <i>a red small bag</i>). f. Form and use prepositional phrases. g. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons. h. Correctly use frequently confused words (e.g., <i>to, too, two; there, their</i>). 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. <ol style="list-style-type: none"> b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed. 3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. <ol style="list-style-type: none"> a. Choose words and phrases to convey ideas precisely. b. Choose punctuation for effect. c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).

Transition to Common Core State Standards with California Additions
Planning ELD Instruction: Fourth Grade *(continued)*

**Language
Standards**
(continued)

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content*, choosing flexibly from a range of strategies.
 - a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases **and to identify alternate word choices in all content areas.**
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs.
 - c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*), and that are basic to a particular topic (e.g., *wildlife, conservation*, and *endangered* when discussing animal preservation).

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to California and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These grade-four CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-four 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade Four

Reading Standards for Literature

Key Ideas and Details

1.	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
2.	Determine a theme of a story, drama, or poem from details in the text; summarize the text.
3.	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Hercules). <u>(See grade 4 Language standards 4-6 for additional expectations.)</u>
5.	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
6.	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

Integration of Knowledge and Ideas

7.	Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
8.	(Not applicable to literature)

Integration of Knowledge and Ideas *(continued)*

- | | |
|----|---|
| 9. | Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. |
|----|---|

Range of Reading and Level of Text Complexity

- | | |
|-----|--|
| 10. | By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
|-----|--|

Reading Standards for Informational Text
Key Ideas and Details

- | | |
|----|--|
| 1. | Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. |
| 2. | Determine the main idea of a text and explain how it is supported by key details; summarize the text. |
| 3. | Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. |

Craft and Structure

- | | |
|----|--|
| 4. | Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area. (See grade 4 Language standards 4-6 for additional expectations.) |
| 5. | Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. |
| 6. | Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. |

Integration of Knowledge and Ideas

- | | |
|----|--|
| 7. | Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. |
| 8. | Explain how an author uses reasons and evidence to support particular points in a text. |
| 9. | Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. |

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of year, read and comprehend informational texts, including history/ social studies, science, and technical texts, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
|-----|---|

Reading Standards: Foundational Skills

Phonics and Word Recognition

3.	<p>Know and apply grade-level phonics and word analysis skills in decoding words.</p> <p>a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.</p>
----	---

Fluency

4.	<p>Read with sufficient accuracy and fluency to support comprehension.</p> <p>a. Read on-level text with purpose and understanding.</p> <p>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.</p> <p>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</p>
----	--

Writing Standards

Text Types and Purposes

1.	<p>Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <p>a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.</p> <p>b. Provide reasons that are supported by facts and details.</p> <p>c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).</p> <p>d. Provide a concluding statement or section related to the opinion presented.</p>
2.	<p>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <p>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aid comprehension.</p> <p>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</p> <p>c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Provide a concluding statement or section related to the information or explanation presented.</p>
3.	<p>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</p> <p>b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.</p>

Text Types and Purposes (*continued*)

- | | |
|--|--|
| | <ul style="list-style-type: none"> c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events. |
|--|--|

Production and Distribution of Writing

4.	Produce clear and coherent writing (including multiple-paragraph texts) in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5.	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4.)
6.	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

Research to Build and Present Knowledge

7.	Conduct short research projects that build knowledge through investigation of different aspects of a topic.
8.	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes, paraphrase , and categorize information; and provide a list of sources.
9.	<p>Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ul style="list-style-type: none"> a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”). b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).

Range of Writing

10.	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
-----	---

Speaking and Listening Standards**Comprehension and Collaboration**

1.	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners <i>on grade 4 topics and texts</i> , building on others’ ideas and expressing their own clearly.
----	--

Comprehension and Collaboration (continued)

	<ul style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions to clarify or follow up on information; and make comments that contribute to the discussion and link to the remarks of others. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
2.	Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3.	Identify the reasons and evidence a speaker or media source provides to support particular points.

Presentation of Knowledge and Ideas

4.	<p>Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p>a. Plan and deliver a narrative presentation that: relates ideas, observations, or recollections; provides a clear context; and includes clear insight into why the event or experience is memorable.</p>
5.	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
6.	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 for specific expectations.)

Language Standards**Conventions of Standard English**

1.	<p>Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Write fluidly and legibly in cursive or joined italics.</p> <ul style="list-style-type: none"> b. Use interrogative, relative pronouns (<i>who, whose, whom, which, that</i>) and relative adverbs (<i>where, when, why</i>). c. Form and use the progressive (e.g., <i>I was walking; I am walking; I will be walking</i>) verb tenses. d. Use modal auxiliaries (e.g., <i>can, may, must</i>) to convey various conditions. e. Order adjectives within sentences according to conventional patterns (e.g., <i>a small red bag</i> rather than <i>a red small bag</i>). f. Form and use prepositional phrases. g. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* h. Correctly use frequently confused words (e.g., <i>to, too, two; there, their</i>).
----	--

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Conventions of Standard English (*continued*)

- | | |
|----|--|
| 2. | Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. <ol style="list-style-type: none"> a. Use correct capitalization. b. Use commas and quotation marks to mark direct speech and quotations from a text. c. Use a comma before a coordinating conjunction in a compound sentence. d. Spell grade-appropriate words correctly, consulting references as needed. |
|----|--|
-

Knowledge of Language

- | | |
|----|--|
| 3. | Use knowledge of language and its conventions when writing, speaking, reading, or listening. <ol style="list-style-type: none"> a. Choose words and phrases to convey ideas precisely.* b. Choose punctuation for effect.* c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). |
|----|--|
-

Vocabulary Acquisition and Use

- | | |
|----|---|
| 4. | Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 4 reading and content</i> , choosing flexibly from a range of strategies. <ol style="list-style-type: none"> a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., <i>telegraph</i>, <i>photograph</i>, <i>autograph</i>). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases <u>and to identify alternate word choices in all content areas.</u> |
| 5. | Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. <ol style="list-style-type: none"> a. Explain the meaning of simple similes and metaphors (e.g., <i>as pretty as a picture</i>) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to opposites (antonyms) and to words with similar but not identical meanings (synonyms). |
| 6. | Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., <i>quizzed</i> , <i>whined</i> , <i>stammered</i>) and that are basic to a particular topic (e.g., <i>wildlife</i> , <i>conservation</i> , and <i>endangered</i> when discussing animal preservation). |
-

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understanding, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for fourth grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations—Fractions, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s fourth-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for fourth-grade mathematics, including some highlights of how the fourth-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of some mathematical concepts and skills from third grade (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the grade-four CCSS for mathematics can be found at the end of this section. A complete list of the grade-four 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Fourth-Grade Students Should Know

Students entering fourth grade who have met the third-grade CCSS understand place value (amounts of thousands) and can round whole numbers to the nearest 10 or 100. They know, from memory, all products of numbers from 1 to 9 and can fluently multiply and divide (within 100) and add and subtract (within 1000). They can use addition, subtraction, multiplication, and division to solve word problems.

By the start of fourth grade, students recognize fractions as numbers. They can use a number line to represent, explain, and compare various positive fractions (e.g., unit fractions, equivalent fractions, whole numbers as fractions, and fractions with the same numerator or the same denominator). Students know how to apply their understanding of fractions to measure lengths using rulers marked with halves and fourths of an inch. They can also relate their understanding of fractions and geometry to partition shapes into parts with equal areas and represent each part as a unit fraction of the whole.

Students entering fourth grade understand how to measure liquid volume (using standard units) and the area of plane figures (by counting unit squares). They can relate the concept of area to the operations of multiplication and division and understand that the area of a rectangle can be found by multiplying the side lengths. Students know how to compare common geometric shapes (e.g., rectangles and quadrilaterals) based on common attributes (e.g., having four sides).

What Students Learn in Fourth Grade

Fourth-grade students perform multi-digit arithmetic. They use large whole numbers to fluently add and subtract and to develop fluency with multiplication and division (including quotients with remainders). They develop an understanding of fraction equivalents, addition and subtraction of fractions (with like denominators), and multiplication of fractions by whole numbers. Students classify geometric shapes based on properties (i.e., parallel or perpendicular sides, angle measurements, and symmetry).

Operations and Algebraic Thinking

In both the fourth-grade 1997 California mathematics standards and the CCSS, students use four operations (addition, subtraction, multiplication, and division) with whole numbers to solve problems. Students solve multistep word problems, including problems in which remainders must be interpreted and for which a rounded solution is appropriate. As fourth-grade students solve problems that mix the four arithmetic operations, they use the convention of order of operations to solve problems (first multiply

and divide from left to right, and then add and subtract from left to right). With full implementation of the CCSS, the use of parentheses to modify the order of operations will be introduced at grade five (a grade-four topic in the 1997 California standards).

In fourth grade, students find all factor pairs for whole numbers in the range 1–100. They determine whether a given whole number is a multiple of a one-digit number or is a prime number. These factoring skills are important as fourth-grade students generate equivalent fractions.

With full implementation of the CCSS, fourth-graders will generate a number or shape pattern that follows a given rule. This concept is similar to the work with linear patterns done in third grade in the 1997 California standards. Negative numbers will be introduced at sixth grade, a fourth-grade topic in the 1997 California standards.

Number and Operations in Base Ten

In both the 1997 California mathematics standards and the CCSS, fourth-grade students extend their understanding of place value to include multi-digit whole numbers. Students read, write, and compare numbers based on the meaning of the digits in each place (a digit in one place represents 10 times what it represents in the place to its right). Students also use understanding of place value to round multi-digit whole numbers. At grade four, the CCSS limit understanding of place value to whole numbers less than or equal to 1,000,000; the 1997 California standards include whole numbers in the millions.

In fourth grade, students perform multi-digit arithmetic with whole numbers. They fluently add and subtract multi-digit numbers. They multiply (multi-digit numbers by two-digit numbers) and divide (four-digit numbers by a one-digit number), including quotients with remainders. They can explain their understanding of multiplication and division calculations by using equations, rectangular arrays, area models, or all three.

With full implementation of the CCSS, some third-grade concepts in the 1997 California standards will be covered in fourth grade—for example, addition and subtraction (with two whole numbers within 1,000–10,000), multiplication and division (whole numbers with up to four digits by one-digit numbers), and rounding numbers to the nearest thousands.

Number and Operations—Fractions

Student proficiency with fractions is essential to success in algebra at later grades. In fourth grade, the 1997 California mathematics standards focus on fractional concepts. For example, students explain different interpretations of fractions (including equivalent fractions) and write a fraction

represented by a drawing. The CCSS extend this conceptual work with fractions as students recognize and generate equivalent fractions and compare two fractions, each with different numerators and different denominators (e.g., by creating common denominators).

With full implementation of the CCSS, various fractional concepts will be covered at different grades. For example, a few concepts in the fifth grade 1997 California standards will be addressed in fourth grade, when students add and subtract mixed numbers with like denominators and apply the meaning of multiplication to multiply a fraction by a whole number and solve related word problems. Similarly, a third-grade concept in the 1997 California standards will be covered in fourth grade, when students add and subtract simple fractions with like denominators.

Both the 1997 California mathematics standards and the CCSS develop an understanding of decimal fractions and decimal notations. Fourth-grade students use their understanding of equivalent fractions to order and compare decimals. They use the decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as $62/100$), and compare two decimals to hundredths using a number line or another visual model to justify conclusions. Students also add two fractions with denominators 10 and 100 (e.g., $3/10 + 4/100 = 34/100$).

With full implementation of the CCSS, some related fourth-grade topics in the 1997 California standards will be covered in fifth grade as students add, subtract, and round decimals.

Measurement and Data

The 1997 California mathematics standards and the CCSS develop measurement and unit-conversion skills. Fourth-grade students understand relative sizes of measurement units within one system of units (such as ounce, liter, and milliliter or hour, minute, and second) and express measurements in a larger unit in terms of a smaller unit (for example, 1 foot is 12 inches). Students solve word problems involving measurement, and they apply the area and perimeter formulas for rectangles in real-world and mathematical problems.

In fourth grade, students recognize angles as geometric shapes. They measure angles and solve addition and subtraction problems to find unknown angles on a diagram.

With full implementation of the CCSS, several fourth-grade topics in the 1997 California standards will be addressed at different grade levels. For example, graphing points on a two-dimensional coordinate grid will be covered in fifth grade; work with statistical survey questions and measures of center for data sets (e.g., median) will move to sixth grade; and outcomes of probability will be covered in seventh grade.

Geometry

The 1997 California mathematics standards and the CCSS focus on how to classify shapes. Students classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines and angles and identify special triangles (e.g., right, equilateral, isosceles, scalene) and special quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid). Fourth-grade students also recognize a line of symmetry for a two-dimensional figure, identify line-symmetric figures, and draw lines of symmetry.

With full implementation of the CCSS, some geometry concepts in fourth grade in the 1997 California standards will be addressed at different grade levels. For example, radius and diameter of a circle will be covered in sixth grade, and congruent figures will be a topic in eighth grade and Algebra I.

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so forth). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first*, *second*, *last*, *before*, *every*, *each*, *more*, and *equal*. Students may be unfamiliar with *sum*, *difference*, *solve*, *length*, and *value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the *face* of a clock).
- The place value of some numbers between 10 and 20 is not obvious from the names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).

- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (e.g., *greater than*, *less than*, *most often*, *least often*), or position words (*behind*, *below*, *in front of*, *to the right of*, *to the left of*).

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Use of Calculators

Although not discussed in the CCSS, the use of calculators plays a special role in mathematics teaching and learning. Initially, it is important that students in the early grades develop a facility with basic arithmetic skills without reliance on calculators. In later grades, when students are ready to use calculators to their advantage, calculators can provide a useful tool not only for solving problems in various contexts but also for broadening students' mathematical horizons.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-four CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-four 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade Four

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

1.	Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
2.	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. ¹
3.	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding and explain why a rounded solution is appropriate.

Gain familiarity with factors and multiples.

4.	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
----	--

Generate and analyze patterns.

5.	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i>
----	---

1. See the Glossary, Table 2, on the CCSS Initiative Web site at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.

Number and Operations in Base Ten (4.NBT)²

Generalize place value understanding for multi-digit whole numbers.

1.	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. <i>For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.</i>
2.	Read and write multi-digit whole numbers by using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
3.	Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4.	Fluently add and subtract multi-digit whole numbers by using the standard algorithm.
5.	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
5.1	<u>Solve problems involving multiplication of multi-digit numbers by two-digit numbers. (CA Standard NS 3.3)</u>
6.	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions (4.NF)³

Extend understanding of fraction equivalence and ordering.

1.	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
2.	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

2. Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

3. Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.

3.	<p>Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <ol style="list-style-type: none"> Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. <i>Examples:</i> $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4.	<p>Apply and extend previous understanding of multiplication to multiply a fraction by a whole number.</p> <ol style="list-style-type: none"> Understand a fraction a/b as a multiple of $1/b$. <i>For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</i> Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. <i>For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)</i> Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. <i>For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</i>

Understand decimal notation for fractions, and compare decimal fractions.

5.	<p>Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.⁴ <i>For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.</i></p>
6.	<p>Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meter; locate 0.62 on a number line diagram.</i></p>
7.	<p>Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using the number line or another visual model.</p>

4. Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1.	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), . . .</i>
2.	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities by using diagrams such as number line diagrams that feature a measurement scale.
3.	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. <i>For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.</i>

Represent and interpret data.

4.	Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i>
----	--

Geometric measurement: understand concepts of angle and measure angles.

5.	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: <ol style="list-style-type: none"> An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a "one-degree angle," and can be used to measure angles. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
6.	Measure angles in whole-number degrees by using a protractor. Sketch angles of specified measure.
7.	Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1.	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify them in two-dimensional figures.
2.	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. (Two-dimensional shapes should include special triangles, e.g., equilateral, isosceles, scalene, and special quadrilaterals, e.g., rhombus, square, rectangle, parallelogram, trapezoid.)
3.	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Fifth-Grade Curriculum



What will my child learn in English language arts and mathematics in fifth grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance fifth-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of fifth grade. Each section includes a brief overview of what the student should have learned before entering fifth grade, followed by a description of the fifth-grade standards. Each subject concludes with a list of the fifth-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

Students in fifth grade are at the beginning of an academic stage traditionally described as reading to learn—or, more broadly, as reading and learning for life. During the first years of this stage, they begin to acquire and apply a full and complex range of lifelong language and literacy skills, skills that enable them to read to learn throughout their education and future careers. Deeper analysis of literature and informational text is a focus of grade-five instruction, though reading fluently and accurately remains a goal for all students. Students' understanding of the precise meanings of words, English language conventions, structural features of informational text and materials, and fundamental elements of literature all support greater comprehension of what they read, view, and hear.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are also some notable differences. For instance, in the CCSS, the standards in kindergarten through grade six are divided into strands: Reading, Writing, Speaking and Listening, and Language. The 1997 California English language arts standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. The CCSS often extend or enhance the content of the 1997 California English language arts standards. For example, the CCSS focus on more informational text, text-analysis skills for reading comprehension, opinion pieces, informational/explanatory compositions, and collaborative discussions about grade-level texts and topics.

This section provides an overview of the new CCSS for fifth-grade English language arts. It includes a review of the important English language arts skills and concepts from fourth grade (prerequisite skills) and guidance to ensure success for struggling readers, including English learners. A complete list of the grade-five CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the grade-five 1997 California English language arts standards is located on the CDE Content Standards page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Fifth-Grade Students Should Know

In fourth grade, students read a wide range of literature in different genres and from different cultures and times. They studied the structural elements of poems, prose, and dramas and learned to summarize text in a concise manner. They analyzed informational text by considering its overall structure and organization, the differences between first- and second-hand accounts, and the author's use of evidence to support points in the text. Students acquired grade-level academic language and domain-specific vocabulary to support their reading and listening comprehension, writing, and speaking. They practiced a range of strategies for acquiring vocabulary independently.

Fourth-grade students also wrote detailed informational/explanatory texts with headings, illustrations, definitions, and quotations, as well as narratives in which they developed real or imagined experiences or events. They used technology to find information, interact and collaborate with others, and produce and publish writing. Students participated in collaborative discussions on fourth-grade topics and texts, paraphrased information presented in diverse media and formats, and delivered formal narrative presentations. They learned the conventions of standard English grammar and usage, capitalization, punctuation, and spelling to support their writing and speaking (e.g., using punctuation for effect and choosing words and phrases to convey ideas precisely).

What Students Learn in Fifth Grade

Fifth-grade students read a wide range of materials, including literature from different times and cultures and informational text on grade-level topics in all subject areas. They practice the foundational reading skills learned in previous grades to read accurately and fluently, but the emphasis in fifth grade is on students' comprehension of complex narrative and informational texts. Students read two or more texts on a topic and use a variety of comprehension strategies to compare, contrast, and integrate information from the texts. They analyze how structure, point of view, visual elements, and figurative language contribute to the meaning or tone of texts. As their text-analysis skills deepen, students are able to determine the main themes or points of text, understand how the author's evidence and reasons support the theme or argument of the text, and draw inferences or conclusions supported by details from the text. They learn academic language and domain-specific vocabulary through their reading and use it in their writing and speaking.

In their writing, students learn to group related information logically; use words, phrases, and clauses to link opinions to reasons and to connect ideas to related ideas; and use narrative techniques, such as dialogue, description, and pacing, to develop the story line or characters. They revise, edit, and rewrite their compositions and learn to try new approaches to improve their writing. Students conduct research projects that provide them with practice in gathering information, using print and digital sources, and summarizing information in notes.

Students engage effectively in collaborative discussions on fifth-grade topics and texts, identify and analyze logical fallacies in speakers' presentations or from media sources, and learn to deliver speeches in which they state an opinion and support it with a logical sequence of evidence. They also learn to use gestures and expressions to convey meaning when they recite a section of a speech or poem or read from a historical or scientific

document. To support their writing and speaking, they learn the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, such as using commas and quotations to set off dialogue and correctly indicating titles of different kinds of documents and sources. Students learn to use print and digital reference materials to determine the correct pronunciation and meaning of words and to identify alternate word choices in all fifth-grade content areas.

Reading

The following section is organized according to three major areas: reading standards for literature, for informational text, and in foundational skills.

Reading Standards for Literature

Students in fifth grade read and analyze a variety of historically and culturally significant works of literature, including stories, drama, and poetry. In both the 1997 California English language arts standards and the CCSS, students analyze the structures and elements of literary works in order to comprehend the texts. They learn to recognize the theme in stories, dramas, and poetry, even when it is implied instead of directly stated. Students summarize texts, compare and contrast the actions and motives of two or more characters, and draw inferences from texts. They understand figurative language in context, including metaphors and similes, and its function as a literary device.

The 1997 California English language arts standards include a focus on literary criticism. Students read literature from different eras and cultures and evaluate the meaning of archetypal patterns and symbols found in myths and traditional literature. In addition, students evaluate techniques (e.g., appeal of characters, logic and credibility of plots and settings, use of figurative language) that an author uses to influence readers' perspectives.

There are similar standards in the CCSS. For example, students describe how a narrator's or speaker's point of view influences how events in the narrative are described. They also compare and contrast approaches to similar themes and topics in stories of the same genre. Unique to the CCSS is a standard that focuses attention on visual and multimedia elements of literature in different media, including technology-based presentations. Students analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of texts, including graphic novels and multimedia presentations of fiction, folktales, myths, and poems.

Reading Standards for Informational Text

At this stage of reading to learn, students read more informational text in English language arts and other grade-level subject areas than in

earlier grades. As students face increased reading demands in all fifth-grade subject areas, improved comprehension becomes critical to their academic success. The 1997 California English language arts standards focus more on informational text at this grade level than in previous grade levels and are therefore more similar to the CCSS.

In both the 1997 California English language arts standards and the CCSS, students use their knowledge of text structure, organization, and purpose to comprehend the essential ideas, arguments, and perspectives of informational text. They learn to discern the main ideas and concepts of a text and to identify and explain the reasons and evidence presented to support the main idea or argument. Students learn to gather information from multiple sources, including maps, charts, and illustrations, and understand how text features (e.g., formatting, sequence) make information more accessible. They use text features to find information quickly or answer questions about a topic. They are able to draw inferences and conclusions from text and to support them with explicit evidence from the text.

The CCSS emphasize additional analytical skills that call for students to think critically and ask students to explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. As they analyze the points of view presented in multiple accounts of the same event or topic, they learn to recognize important similarities and differences. Students learn to integrate information from several texts on the same subject in order to write or speak about the subject knowledgeably. To support their comprehension of texts on fifth-grade topics in all subject areas, students learn the meaning of general academic and domain-specific words and phrases.

Reading Standards in Foundational Skills

In fifth grade, students continue to build on the foundational skills that enable them to read and comprehend complex narrative and expository texts. Both the 1997 California English language arts standards and the CCSS call for students to decode words fluently and accurately. Students in fifth grade decode words by using their knowledge of all letter-sound correspondences, syllabication patterns, affixes, and root words.

Fluency expectations increase as students read grade-level narratives, prose, poetry, and informational text with accuracy, appropriate pacing, and expression. The CCSS expand on these expectations by also calling for students to read with purpose and understanding and to use context to confirm or self-correct word recognition and understanding.

After fifth grade, the CCSS no longer include standards in the foundational skills of reading. As students advance through the grades, they will apply the foundational reading skills they mastered in preceding grades, allowing them to read with fluency and accuracy to fully comprehend grade-level literature and informational text.

Writing

Students in grade five write with an awareness of their audience and purpose. Their writing demonstrates a command of the conventions of the English language, an understanding of the structures and organization of text, and experience with the stages of the writing process (e.g., prewriting, drafting, revising, editing). They use resources to gather information to support their main idea and use technology to create documents. Students learn to use transitional words or phrases to link paragraphs and ideas, making clear their line of thought.

Both the 1997 California English language arts standards and the CCSS call for students in fifth grade to write multiparagraph texts with a central idea or theme, relevant supporting details, and a conclusion. The types of writing that students produce will vary under each set of standards. Students write responses to literature, persuasive letters or compositions, research reports, and narratives under the 1997 California English language arts standards. The persuasive compositions are similar to the opinion pieces students write under the CCSS, and the research reports are similar to the informative/explanatory text. Students write narratives under both sets of standards.

The two sets of standards have different expectations for the quality of students' writing, with the CCSS setting more detailed and challenging criteria for students' writing. Under the CCSS, students write routinely in both short and extended time frames for a range of discipline-specific tasks, purposes, and audiences. They learn to organize their opinion pieces so that ideas are logically grouped to support their opinion; link opinions to reasons with words (e.g., *consequently*, *specifically*), phrases, and clauses; and provide a concluding statement or section related to the opinion stated. The CCSS call for students to include formatting (e.g., headings), illustrations, and multimedia in their informative/explanatory texts to aid comprehension and to use precise language and domain-specific vocabulary to inform the reader about the topic. In their narrative writing, students learn how to orient the reader by establishing the situation and introducing a narrator or characters. They also learn how to organize a sequence of events that unfolds naturally. Additionally, they use dialogue, description, and pacing to develop experiences and events or show the responses of characters to situations.

Technology, including the Internet, plays a larger role in the CCSS, with students using it to produce and publish writing and to interact and collaborate with others. In grade five, students demonstrate a sufficient command of keyboarding skills to type at least two pages in a single sitting. Students also learn how to obtain information from digital and print sources, summarize or paraphrase information in notes and their finished texts, and provide a list of their sources.

Speaking and Listening

Students in fifth grade listen critically to speakers and media presentations, summarize what they have heard, deliver presentations, and ask questions to gain additional information. In their oral presentations, they use the structures found in both the literature and informational text they read and in their own writing (e.g., a central idea or theme supported by facts, descriptive details, or observations). Students apply the same conventions of standard English when speaking that they use in their writing.

The 1997 California English language arts standards and the CCSS focus on students' listening and comprehension skills and their formal oral-presentation skills. Students identify and analyze logical fallacies in a speaker's presentation or from a media source. They deliver informative reports in which they sequence ideas logically, use appropriate facts and relevant details to support the main idea, and speak clearly. Students also deliver opinion speeches in which they provide evidence and examples to support their point of view. They learn to use expression and gestures to engage the audience and for effect when they recite a poem or a portion of a speech.

There are notable differences between the 1997 California English language arts standards and the CCSS. The 1997 California English language arts standards focus on analyzing oral presentations and media communications. For example, the 1997 California English language arts standards ask students to interpret a speaker's verbal and nonverbal messages, purposes, and perspectives and make inferences based on the speaker's presentation. They also identify, analyze, and critique persuasive techniques (e.g., promises, dares, flattery, generalizations). Students analyze media sources and their influence on information, entertainment, persuasion, and as a means of transmitting culture.

The CCSS emphasize collaborative discussions during which students discuss fifth-grade topics and texts with diverse partners and in different groupings (one-on-one, in groups, or teacher-led). In these discussions, students build on others' ideas, clearly express their own ideas, follow agreed-on rules, and carry out their assigned roles. To engage effectively in collaborative discussions, students are expected to prepare by reading or studying material that will be discussed or is related to the topic. They make comments that contribute to the discussion and elaborate on the remarks of others, review the key ideas expressed during the discussion, and draw conclusions based on what they have learned.

Multimedia components, as sources of information and complements to oral presentations, are another focus of the CCSS. Students in fifth grade learn to summarize information presented in diverse media and formats, including visual, quantitative, and oral. They also summarize the points

made by a speaker or media source and explain how the claims are supported by reasons and evidence. When media enhance the development of their main ideas or themes, students incorporate multimedia components (e.g., graphics, sound) and visual displays (e.g., maps, charts) in their oral presentations. Students learn to adapt their speech to a variety of contexts and tasks and are able to use formal English when it is appropriate to do so.

Language

In fifth grade, students learn new rules for grammar and usage, capitalization, punctuation, and spelling. The specific rules or conventions they learn vary between the 1997 California English language arts standards and the CCSS. Students use their knowledge of language and its conventions when writing, speaking, listening, and reading.

There are more standards for English language conventions in the CCSS than in the 1997 California English language arts standards, and they cover a broader range of conventions in grammar and usage, capitalization, punctuation, and spelling. For example, under the 1997 California English language arts standards for fifth grade, students use conjunctions to connect ideas. Under the fifth-grade CCSS, they explain the function of conjunctions, as well as prepositions and interjections, in general and in particular sentences. The 1997 California English language arts standards call for students to identify and correctly use verbs that are often misused (e.g., *lie/lay, rise/raise*), while the CCSS call for students to use verb tense to convey various times, sequences, states, and conditions.

The fifth-grade CCSS emphasize verb tenses. Students learn to use perfect-tense verbs (e.g., *I had walked; I have walked*) and to recognize and correct inappropriate shifts in verb tenses. Comma use is another focus of the CCSS in fifth grade. Students learn to punctuate items in a series and use a comma to separate an introductory element from the rest of the sentence. They also learn to use a comma to set off the words “yes” and “no” (e.g., *Yes, thank you*); to set off a tag question from the rest of the sentence (e.g., *It’s true, isn’t it?*); and to indicate direct address (e.g., *Is that you, Linda?*).

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover a range of strategies for vocabulary acquisition, though independent reading is the primary means by which students increase their vocabulary. Under both sets of standards, students use their knowledge of the relationships between synonyms, antonyms, and homonyms to understand each

of the related words. These strategies are taught more explicitly under the CCSS, which have a greater focus on relationships between words than the 1997 California English language arts standards. Students understand and can explain figurative language, including similes and metaphors, in context. They use Greek and Latin affixes and roots to understand the meaning of complex words (e.g., *controversial*, *photosynthesis*).

In addition, the CCSS emphasize students' use of both print and digital reference materials (e.g., dictionaries, glossaries, thesauruses) to pronounce words, clarify the precise meaning of key words, and to identify alternate word choices in all fifth-grade subject areas. In a related standard, the CCSS call for students to acquire and use grade-appropriate academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *although*, *similarly*, *but*). Students also learn and can explain the meaning of common idioms, adages, and proverbs.

Extra Support for Struggling Readers

By the end of fifth grade, students are expected to be fluent, independent readers, reading with accuracy that supports their comprehension of literature and informational text. Students who are not proficient in word-analysis skills are likely to experience academic difficulties. Early screening and intervention address specific weaknesses in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with disabilities—need additional support to participate in daily lessons with their peers and to ensure they become proficient in fifth-grade reading skills. Instructional support for students should include:

- flexible groupings for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- intensive, explicit instruction in decoding and word-recognition skills, which may include materials at the reading level of students;
- preteaching and reteaching of Greek and Latin affixes and roots;
- scaffolded instruction in the fundamental elements of plot, including conflict and resolution;
- ample opportunities to practice delivery of oral presentations;
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

For those students whose reading achievement is two or more years below grade level, placement in an Intensive Intervention Program in Reading/Language Arts should be considered. These intensive, stand-alone, accelerated programs are designed to address the instructional needs of students in grades four through eight whose reading achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rlaadoptionlist.asp>.)

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language have an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing.

Students in fifth grade continue to transition from learning to read to reading to learn subject-matter content, which calls for students to use and understand more sophisticated content-specific vocabulary and language structures. English learners should receive intensive instruction in vocabulary development and academic language to succeed in language arts and other subjects at their grade level. English learners benefit from instructional strategies such as preteaching concepts, vocabulary, and the grammatical features of key vocabulary and by having multiple opportunities to use newly acquired vocabulary in their reading, speaking, and writing assignments. They also benefit from explicit instruction on how to write narrative compositions focusing on the use of plot elements. Students practice and learn how to switch from past and present tenses while developing narrative essays. Because English learners are still developing proficiency in English, they benefit from teacher feedback on their writing and on their grammar, usage, and so forth. English learners may need additional time and practice in writing such compositions to further their writing abilities.

English learners develop oral and written language through formal linguistic instruction. They learn common phrases, idiomatic expressions, and language patterns, as well as phonological, morphological, syntactical, and semantic structures of English. As students learn the rules of English grammar and functions of verb tenses, prepositions, conjunctions, and

interjections, they practice them in both speaking and writing and receive corrective teacher feedback. (For a more extensive list of the conventions of grammar, refer to the “Transition to the Common Core State Standards with California Additions: Planning ELD Instruction” chart that follows.)

For those students whose academic achievement is two or more years below grade level, placement in an Intensive Intervention Program for English Learners should be considered. These intensive, stand-alone, accelerated programs are designed for English learners in grades four through eight whose academic achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs for English learners, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rlaadoptionlist.asp>.)

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies are provided, as well as recommended instructional practices. Information on the publication is available through the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fifth Grade

<p>Reading Standards for Literature</p>	<ol style="list-style-type: none"> 2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. 4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. <u>(See grade 5 Language standards 4-6 for additional expectations.)</u> 6. Describe how a narrator's or speaker's point of view influences how events are described. 7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). 9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. 10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.
<p>Reading Standards for Informational Text</p>	<ol style="list-style-type: none"> 3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. 5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. 6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. 7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. 8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). 9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. 10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently.

Note: California additions are in bold typeface and underlined.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fifth Grade *(continued)*

Reading Standards: Foundational Skills	<ol style="list-style-type: none"> 4. Read with sufficient accuracy and fluency to support comprehension. <ol style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
Writing Standards	<ol style="list-style-type: none"> 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. <ol style="list-style-type: none"> a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically). d. Provide a concluding statement or section related to the opinion presented. 2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <ol style="list-style-type: none"> a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially.) d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. 3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. <ol style="list-style-type: none"> b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fifth Grade *(continued)*

Writing Standards
(continued)

- d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
 - e. Provide a conclusion that follows from the narrated experiences and events.
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 5.)
 6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
 7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
 8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
 9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
 - a. Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”).
 - b. Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).
 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening Standards

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others’ ideas and expressing their own clearly.
 - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fifth Grade *(continued)*

<p>Speaking and Listening Standards <i>(continued)</i></p>	<ul style="list-style-type: none"> b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. <p>2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p> <p>3. Summarize the points a speaker <u>or media source</u> makes and explain how each claim is supported by reasons and evidence, <u>and identify and analyze any logical fallacies.</u></p> <p>4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p> <p><u>a. Plan and deliver an opinion speech that: states an opinion, logically sequences evidence to support the speaker’s position, uses transition words to effectively link opinions and evidence (e.g., consequently and therefore), and provides a concluding statement related to the speaker’s position.</u></p> <p><u>b. Memorize and recite a poem or section of a speech or historical document using rate, expression, and gestures appropriate to the selection.</u></p> <p>5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.</p>
<p>Language Standards</p>	<p>1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., <i>I had walked; I have walked; I will have walked</i>) verb tenses. c. Use verb tense to convey various times, sequences, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense. e. Use correlative conjunctions (e.g., <i>either/or, neither/nor</i>).

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Fifth Grade *(continued)*

Language Standards
(continued)

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use punctuation to separate items in a series.
 - b. Use a comma to separate an introductory element from the rest of the sentence.
 - c. Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).
 - d. Use underlining, quotation marks, or italics to indicate titles of works.
 - e. Spell grade-appropriate words correctly, consulting references as needed.
3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
 - b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies.
 - a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases **and to identify alternate word choices in all content areas.**
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figurative language, including similes and metaphors, in context.
 - b. Recognize and explain the meaning of common idioms, adages, and proverbs.
 - c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to California and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). These grade-five CCSS for English language arts were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-five 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade Five

Reading Standards for Literature

Key Ideas and Details

1.	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2.	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3.	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. <u>(See grade 5 Language standards 4-6 for additional expectations.)</u>
5.	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
6.	Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

7.	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
8.	(Not applicable to literature)

Integration of Knowledge and Ideas *(continued)*

- | | |
|----|--|
| 9. | Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. |
|----|--|

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently. |
|-----|---|

Reading Standards for Informational Text**Key Ideas and Details**

- | | |
|----|---|
| 1. | Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. |
| 2. | Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. |
| 3. | Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. |

Craft and Structure

- | | |
|----|---|
| 4. | Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. (See grade 5 Language standards 4-6 for additional expectations.) |
| 5. | Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. |
| 6. | Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. |

Integration of Knowledge and Ideas

- | | |
|----|--|
| 7. | Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. |
| 8. | Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). |
| 9. | Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. |

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4-5 text complexity band independently and proficiently. |
|-----|---|

Reading Standards: Foundational Skills

Phonics and Word Recognition

- | | |
|----|--|
| 3. | <p>Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ol style="list-style-type: none"> a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. |
|----|--|

Fluency

- | | |
|----|---|
| 4. | <p>Read with sufficient accuracy and fluency to support comprehension.</p> <ol style="list-style-type: none"> a. Read on-level text with purpose and understanding. b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. |
|----|---|

Writing Standards

Text Types and Purposes

- | | |
|----|---|
| 1. | <p>Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <ol style="list-style-type: none"> a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons by using words, phrases, and clauses (e.g., consequently, specifically). d. Provide a concluding statement or section related to the opinion presented. |
| 2. | <p>Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ol style="list-style-type: none"> a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented. |

Text Types and Purposes (*continued*)

3.	<p>Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ol style="list-style-type: none"> a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.
----	--

Production and Distribution of Writing

4.	Produce clear and coherent writing (including multiple-paragraph texts) in which the development and organization are appropriate to the task, purpose, and audience. (Grade-specific expectations for types of writing are defined in standards 1–3 above.)
5.	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 5.)
6.	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

7.	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8.	Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work; and provide a list of sources.
9.	<p>Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <ol style="list-style-type: none"> a. Apply grade 5 Reading standards to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]”). b. Apply grade 5 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]”).

Range of Writing

- | | |
|-----|---|
| 10. | Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. |
|-----|---|

Speaking and Listening Standards**Comprehension and Collaboration**

- | | |
|----|--|
| 1. | Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 5 topics and texts</i> , building on others' ideas and expressing their own clearly. <ol style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. b. Follow agreed-upon rules for discussions and carry out assigned roles. c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. |
| 2. | Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. |
| 3. | Summarize the points a speaker or media source makes and explain how each claim is supported by reasons and evidence, and identify and analyze any logical fallacies. |

Presentation of Knowledge and Ideas

- | | |
|----|---|
| 4. | Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. <ol style="list-style-type: none"> a. <u>Plan and deliver an opinion speech that: states an opinion, logically sequences evidence to support the speaker's position, uses transition words to effectively link opinions and evidence (e.g., consequently and therefore), and provides a concluding statement related to the speaker's position.</u> b. <u>Memorize and recite a poem or section of a speech or historical document using rate, expression, and gestures appropriate to the selection.</u> |
| 5. | Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. |
| 6. | Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 for specific expectations.) |

Language Standards

Conventions of Standard English

1.	<p>Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. b. Form and use the perfect (e.g., <i>I had walked; I have walked; I will have walked</i>) verb tenses. c. Use verb tense to convey various times, sequences, states, and conditions. d. Recognize and correct inappropriate shifts in verb tense. e. Use correlative conjunctions (e.g., <i>either/or, neither/nor</i>).
2.	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> a. Use punctuation to separate items in a series. b. Use a comma to separate an introductory element from the rest of the sentence. c. Use a comma to set off the words <i>yes</i> and <i>no</i> (e.g., <i>Yes, thank you</i>), to set off a tag question from the rest of the sentence (e.g., <i>It's true, isn't it?</i>), and to indicate direct address (e.g., <i>Is that you, Steve?</i>). d. Use underlining, quotation marks, or italics to indicate titles of works. e. Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

3.	<p>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ol style="list-style-type: none"> a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
----	---

Vocabulary Acquisition and Use

4.	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 5 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., <i>photograph, photosynthesis</i>). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases and to identify alternate word choices in all content areas.
----	--

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Vocabulary Acquisition and Use (*continued*)

5.	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. <ol style="list-style-type: none">a. Interpret figurative language, including similes and metaphors, in context.b. Recognize and explain the meaning of common idioms, adages, and proverbs.c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
6.	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., <i>however, although, nevertheless, similarly, moreover, in addition</i>).

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for fifth grade are Operations and Algebraic Thinking, Number and Operations in Base Ten, Number and Operations—Fractions, Measurement and Data, and Geometry. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s fifth-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for fifth-grade mathematics, including some highlights of how the fifth-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of the important mathematical concepts and skills from fourth grade (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the fifth-grade CCSS for mathematics can be found at the end of this section. A complete list of the fifth-grade 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Fifth-Grade Students Should Know

Students entering fifth grade who have met the fourth-grade CCSS for mathematics are able to apply the four operations (addition, subtraction, multiplication, and division) with whole numbers to solve multistep word problems, including those in which remainders must be interpreted. They have learned to fluently add and subtract multi-digit numbers and can also round multi-digit numbers. Students can multiply multi-digit numbers by two-digit numbers and divide four-digit dividends and one-digit divisors to find whole-number quotients and remainders.

While in fourth grade, students developed an understanding of equivalence and ordering of fractions. They compared two fractions with different numerators and different denominators by creating common denominators or numerators or by comparing to benchmark fractions such as $\frac{1}{2}$. Students decomposed a fraction into a sum of fractions with the same denominator. They solved word problems involving addition and subtraction of fractions with like denominators and multiplication of a fraction by a whole number. Students used decimal notation for fractions with denominators of 10 or 100 (e.g., rewrite 0.62 as $\frac{62}{100}$). They also compared two decimals to hundredths by reasoning about their size and recorded the results of the comparisons with the symbols $>$, $=$, or $<$.

Students entering fifth grade can use the four operations to solve word problems involving measurement and conversion of measurements from a larger unit to a smaller unit within one system (e.g., metric or English units). They understand area and perimeter of rectangles and apply the formulas in real-world problems. Students have developed an understanding of the concept of lines and angles. They can measure angles in whole-number degrees and solve addition and subtraction problems to find unknown angles on a diagram. They can draw and identify points, lines (including parallel and perpendicular lines), and angles in two-dimensional figures. In addition, students can classify two-dimensional figures, including special triangles and quadrilaterals, based on the presence or absence of parallel or perpendicular lines or of angles of a specified size. Students understand the concept of symmetry for two-dimensional figures.

What Students Learn in Fifth Grade

Students in fifth grade apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators. They develop an understanding of the multiplication of fractions and, in limited cases, the division of fractions. Students develop fluency in multiplying and dividing decimals to hundredths and finalize fluency using the four operations with whole numbers. They find

the volume of right rectangular prisms and classify two-dimensional figures into categories based on their properties. Students graph points on a coordinate plane to solve real-world problems and interpret the coordinate value of points in the context of the situation.

Operations and Algebraic Thinking

In fifth grade, students write and interpret numerical expression. The CCSS call for students to write and evaluate simple numerical expressions, including those that contain parentheses, brackets, or braces. The 1997 California mathematics standards introduce at fourth grade the use of parentheses to indicate the order of operations. Both the 1997 California mathematics standards and the CCSS develop the concept of prime factorization as students express a whole number in the range 2–50 as a product of its prime factors. Students also form ordered pairs from numerical patterns generated from given rules, and they graph the ordered pairs on a coordinate plane.

With full implementation of the CCSS, the evaluation of numerical expressions involving whole-number exponents or those in which letters stand for numbers will be introduced in sixth grade; both are fifth-grade topics in the 1997 California mathematics standards. The use of the distributive property in expressions with variables—a fifth-grade topic in the 1997 California mathematics standards—will be introduced in sixth grade.

Number and Operations in Base Ten

In fifth grade, students achieve fluency with multi-digit addition, subtraction, multiplication, and division of positive whole numbers. Students find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Students develop an understanding of operations with decimals as they add, subtract, multiply, and divide decimals to hundredths. In both the 1997 California mathematics standards and the CCSS, students use their understanding of place value to read, write, and compare decimals to thousandths and round decimals to any place. Fifth-grade students expand their understanding of place value as they explain the effect of multiplying or dividing by powers of 10 on decimal position and the number of zeros in a product. They also use whole-number exponents to denote powers of 10.

With full implementation of the CCSS, operations with negative integers—a fifth-grade topic in the 1997 California mathematics standards—will be introduced in sixth grade.

Number and Operations—Fractions

Both the 1997 California mathematics standards and the CCSS further the development of critical skills required for understanding and working with fractions. Students extend previous understanding of equivalent fractions to add and subtract fractions with unlike denominators, including mixed numbers. They solve word problems involving addition and subtraction of fractions with unlike denominators by using visual fraction models or equations to represent the problem. They also mentally estimate and assess the reasonableness of their answers. (For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.)

In fifth grade, students apply and extend previous understandings of multiplication and division to multiply and divide fractions. Students multiply a fraction or whole number by a fraction. They find the area of a rectangle with fractional side lengths by tiling it with unit squares and multiplying the side lengths to demonstrate procedural equivalence. Fifth-graders interpret multiplication as scaling (resizing) by explaining the results of multiplying given numbers by fractions greater than 1 (a product greater than the given number) and less than 1 (a product smaller than the given number). They solve real-world problems involving multiplication of fractions and mixed numbers.

Students interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$), a fourth-grade topic in the 1997 California mathematics standards. They use visual fraction models or equations to solve word problems involving division of whole numbers, leading to answers in the form of fractions, mixed numbers, or decimal fractions. Students divide unit fractions by nonzero whole numbers and whole numbers by unit fractions. They use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$ and $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$. Division of a fraction by a fraction, a fifth-grade topic in the 1997 California mathematics standards, is a sixth-grade topic in the CCSS.

With full implementation of the CCSS, problems involving percent and negative numbers on a number line are addressed in sixth grade; both are fifth-grade topics in the 1997 California mathematics standards.

Measurement and Data

In both the 1997 California mathematics standards and the CCSS, students convert among different-sized standard measurement units within a given measurement system and use these conversions to solve problems. They represent data in graphs and interpret the meaning of the data to solve problems involving information presented in the graph.

Fifth-grade students understand the concept of volume and relate volume to multiplication and addition to solve real-world and mathematical problems. They find the volume of right rectangular prisms by using unit cubes and relate the method to multiplying the height by the area of the base to show procedural equivalence. Students use the understanding of volume to apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms with whole-number edge lengths.

With full implementation of the CCSS, the concepts of mean and median to summarize data sets are introduced in sixth grade.

Geometry

Students extend their understanding of two-dimensional figures as they classify them in a hierarchy based on properties. They distinguish among rectangles, parallelograms, and trapezoids and derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram). Students know that the sum of the angles of any triangle is 180° and the sum of the angles of any quadrilateral is 360° and use this information to solve problems.

Fifth-grade students graph points in the first quadrant of the coordinate plane to solve problems. With full implementation of the CCSS, the concept of graphing points on a coordinate plane is introduced at fifth grade; this was a fourth-grade topic in the 1997 California mathematics standards. In addition, although both the 1997 California mathematics standards and the CCSS address graphing points in the first quadrant of the coordinate plane to represent real-world problems in fifth grade, writing equations representing real-world problems and graphing in all four quadrants are introduced in sixth grade in the CCSS. Also, the construction of three-dimensional figures from two-dimensional patterns to compute the surface area of figures is addressed in sixth grade in the CCSS.

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic

representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first*, *second*, *last*, *before*, *every*, *each*, *more*, and *equal*. Students may be unfamiliar with *sum*, *difference*, *solve*, *length*, and *value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the *face* of a clock).
- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than*, *less than*, *most often*, *least often*), or position words (*behind*, *below*, *in front of*, *to the right of*, *to the left of*).
- Students may have learned different symbols and procedures that may result in the same answer. In some countries, students are expected to perform most steps mentally rather than by writing out each one.

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Use of Calculators

Although not discussed in the CCSS, the use of calculators plays a special role in mathematics teaching and learning. Initially, it is important that students in the early grades develop a facility with basic arithmetic skills without reliance on calculators. In later grades, when students are ready to use calculators to their advantage, calculators can provide a very useful tool not only for solving problems in various contexts but also for broadening students’ mathematical horizons.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-five CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-five 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade Five

Operations and Algebraic Thinking (5.OA)

Write and interpret numerical expressions.

1.	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2.	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. <i>For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$. Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$, without having to calculate the indicated sum or product.</i>
<u>2.1</u>	<u>Express a whole number in the range 2–50 as a product of its prime factors. For example, find the prime factors of 24 and express 24 as $2 \times 2 \times 2 \times 3$.</u>

Analyze patterns and relationships.

3.	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <i>For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i>
----	--

Number and Operations in Base Ten (5.NBT)

Understand the place value system.

1.	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
----	--

Understand the place value system. *(continued)*

2.	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
3.	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$. b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
4.	Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.

5.	Fluently multiply multi-digit whole numbers using the standard algorithm.
6.	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7.	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations—Fractions (5.NF)**Use equivalent fractions as a strategy to add and subtract fractions.**

1.	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. <i>For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)</i>
2.	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <i>For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.</i>

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3.	Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions, mixed numbers, or decimal fractions , e.g., by using visual fraction models or equations to represent the problem. <i>For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</i>
4.	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i> b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5.	Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
6.	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
7.	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. ¹ a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.

1. Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.

Apply and extend previous understandings of multiplication and division to multiply and divide fractions. *(continued)*

- b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.
- c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?

Measurement and Data (5.MD)

Convert like measurement units within a given measurement system.

- 1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Represent and interpret data.

- 2. Make a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

- 3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
 - a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
 - b. A solid figure that can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
- 4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- 5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
 - a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. *(continued)*

- | | |
|--|--|
| | <p>b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> <p>c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p> |
|--|--|

Geometry (5.G)

Graph points on the coordinate plane to solve real-world and mathematical problems.

- | | |
|----|--|
| 1. | Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate). |
| 2. | Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. |

Classify two-dimensional figures into categories based on their properties.

- | | |
|------------|--|
| 3. | Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. <i>For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</i> |
| 3.1 | <u>Distinguish among rectangles, parallelograms, and trapezoids.</u> |
| 4. | Classify two-dimensional figures in a hierarchy based on properties. |
| 5. | <u>Know that the sum of the angles of any triangle is 180° and the sum of the angles of any quadrilateral is 360°, and use this information to solve problems. (CA-Standard MG 2.2)</u> |
| 6. | <u>Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram). (CA-Standard MG 1.1)</u> |

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Sixth-Grade Curriculum



What will my child learn in English language arts and mathematics in sixth grade?

In August 2010, the state adopted the Common Core State Standards for English language arts and mathematics. How will the new standards enhance sixth-grade curriculum?

This chapter contains two sections—English language arts and mathematics—that describe what students should know and be able to do by the end of sixth grade. Each section includes a brief overview of what the student should have learned before entering sixth grade, followed by a description of the sixth-grade standards. Each subject concludes with a list of the sixth-grade standards for the new Common Core State Standards (CCSS), with California additions, for English language arts and mathematics.

For a more in-depth discussion of each subject, please consult the state-adopted curriculum frameworks for kindergarten through grade twelve. The frameworks are posted on the CDE Curriculum and Instruction Web page at <http://www.cde.ca.gov/ci/cr/cf/allfwks.asp>.

English Language Arts

Overview

Students in sixth grade focus on active engagement with text. They are required to analyze, identify, define, explain, integrate, evaluate, compare, contrast, and cite supportive evidence—developing and building on those skills that were required in fifth grade. Deeper analysis of literature and informational text continues to be the focus of sixth-grade instruction, although reading fluently and accurately remains a goal for all students. Students’ understanding of the precise meaning of words, English language conventions, structural features of informational text and materials, and fundamental elements of literature all support greater comprehension of what they read, see, and hear.

Standards-based instruction is critical to developing students' literacy and proficiency in English language arts. The standards describe what students are expected to know and be able to do by the end of the school year. In 2010, California adopted new standards in English language arts: the CCSS, with California additions. The CCSS integrate the strands of English language arts: Reading, Writing, Speaking and Listening, and Language. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California English language arts standards, but there are also some notable differences. For instance, in the CCSS, the standards in sixth grade are divided into strands: Reading, Writing, Speaking and Listening, and Language. In the 1997 California English language arts standards, the standards are organized around domains: Reading, Writing, Written and Oral English Language Conventions, and Listening and Speaking. An organizational change in the CCSS for grades six through twelve is the inclusion of another set of standards: Reading and Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects. These standards are not intended to replace existing standards in those content areas; instead, they supplement instruction and provide consistency in expectations across the curriculum.

This section provides an overview of the new CCSS for sixth-grade English language arts. It includes a review of the important English language arts skills and concepts from fifth grade (prerequisite skills) and guidance to ensure success for English learners. A complete list of the sixth-grade CCSS for English language arts, with California additions, can be found at the end of this section. A complete list of the sixth-grade 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

What Sixth-Grade Students Should Know

In grade five, students read and analyzed a variety of historical and culturally significant works of literature and focused more attention on comprehension of complex and narrative texts. Students read grade-level text fluently and accurately and mastered foundational reading skills in preparation for grades six and beyond. (Grade five is the last grade in which the CCSS include specific standards in foundational reading skills.) Students analyzed how structure, point of view, visual elements, and figurative language contribute to the meaning or tone of text. They expanded their comprehension and analysis skills to compare, contrast, and integrate

information from two or more texts; determined the theme or thesis; and used details and supporting evidence from the text to draw conclusions.

Students learned academic language and domain-specific vocabulary through their reading and used it in their writing and speaking. In writing, students learned to group related information logically; used words, phrases, and clauses to link opinions to reasons and related ideas; and incorporated narrative techniques to develop a story line or characters. They wrote in both extended and short time frames for a range of content-specific tasks, purposes, and audiences. Technology played a larger role in students' production and publishing of writing. Students also used technology to gather information for research projects and interact or collaborate with others.

In fifth grade, students engaged effectively in collaborative discussions, identified and analyzed logical fallacies in speakers' presentations or from media sources, and learned to plan and deliver presentations. They incorporated conventions of standard English grammar and usage, capitalization, punctuation, and spelling to support their speaking and writing.

What Students Learn in Sixth Grade

Students read and analyze a wide range of literature from different times and cultures, with an increasing emphasis on analyzing informational text on grade-level topics in all sixth-grade subject areas. The emphasis in sixth grade is on students' comprehension of complex narrative and informational texts. Students read two or more texts on a topic and use a variety of comprehension strategies to compare, contrast, and integrate information from the texts. They analyze how structure, point of view, visual elements, and figurative language contribute to the meaning or tone of texts. As their analysis skills deepen, students can identify key individual events and details and use them as evidence to support their analysis and to distinguish claims that are supported by an author from those that are not. Additional analysis skills call for students to compare and contrast one author's presentation of events with another interpretation. They learn academic language and domain-specific vocabulary through their reading and use it in their writing and speaking.

In their writing, students in sixth grade develop more sophisticated skills, such as using evidence from a variety of sources to support their purpose or conclusion. They revise, edit, and rewrite their compositions and learn to try new approaches and use technology to improve their writing product. Students conduct research projects that provide them with practice in gathering information, using print and digital sources, and paraphrasing or summarizing information. Integrating reading and writing across the different content areas is emphasized through the addition

of the standards for literacy in history/social studies, science, and technical subjects.

Students engage effectively in collaborative discussions with diverse partners and in different groupings on sixth-grade topics and texts. They can identify and analyze logical fallacies in speakers' presentations or from media sources. They learn to present an argument and support it with a logical sequence of evidence. They also learn to use expression and nonverbal elements for effect and to engage the audience. To support their writing and speaking, they learn conventions of standard English grammar and usage, capitalization, punctuation, and spelling, such as using commas to set off parenthetical elements. In sixth grade, the proper use of pronouns is emphasized. Developing academic as well as domain-specific vocabulary is highlighted. Students learn to distinguish between words with similar meanings and to use common affixes and roots as clues to the meaning of words. They also use the relationships between certain words (e.g., cause/effect or part/whole) to help understand each word.

Reading

The following section is organized according to two areas of the reading standards: reading standards for literature and for informational text.

Reading Standards for Literature

Students in sixth grade read and analyze a wide range of literature, selected from different periods and cultures, including stories, drama, and poetry. In both the 1997 California English language arts standards and the CCSS, students analyze the structures and elements of literary works in order to comprehend the texts. The CCSS extend comprehension by having students compare and contrast reading a piece of literature with listening to or watching an audio, video, or live version of the text. In addition, students compare and contrast texts in different forms or genres in relationship to different approaches to similar themes or topics. Both the 1997 standards and the CCSS ask students to identify a central idea or theme, using supporting evidence and details. Adding to those skills, the CCSS call for students to analyze how a certain sentence, chapter, scene, or stanza contributes to the development of the theme, setting, or plot. Students must also provide a summary of the text without including their personal opinions.

There are similar word-analysis standards in the 1997 California English language arts standards and the CCSS. For example, students understand figurative language and similar or related words as they are used in text. Although recognition of frequently used foreign words is unique to the 1997 standards, this practice may continue in the CCSS as students analyze the impact of a specific word on meaning and tone.

Reading Standards for Informational Text

By sixth grade, over 50 percent of reading time and activities should focus on informational text. As students face increased reading demands in all sixth-grade content areas, improved comprehension becomes critical to their academic success.

In both the 1997 California English language arts standards and the CCSS, students use their knowledge of text structure, organization, and purpose to comprehend essential ideas and integrate information from different formats and types of text. They identify key individual events and details as evidence to support analysis of the text. Students learn to evaluate whether an author's conclusion is supported by evidence or not.

The CCSS emphasize additional analysis skills that call for students to compare and contrast one author's presentation of events with another interpretation—such as a personal diary by and a biography of the same person. To aid in the comprehension of text, the 1997 California English language arts standards call for students to connect main ideas based on the relationship to other sources and topics. The CCSS extend this skill by asking students to integrate information presented in different media or formats, such as in charts or graphs, as well as in words, to clarify their understanding of a topic. To support their comprehension of texts on sixth-grade topics in all subject areas, students determine the meaning of words and phrases, including content-related vocabulary, or words with technical meanings.

Writing

Students in sixth grade demonstrate sophisticated writing skills from their use of specific vocabulary and syntax to a more cohesive organization of ideas that incorporate a range of content and a variety of sources. Their writing demonstrates a command of the conventions of the English language, familiarity with organizational features, and a clear style of writing appropriate for an identified purpose and audience, and experience with the stages of the writing process (e.g., prewriting, drafting, revising, editing). Students use technology to compose and publish documents and to find resources and gather information to support their main idea.

Both the 1997 California English language arts standards and the CCSS call for students in sixth grade to write multiparagraph texts with a central idea or theme, relevant supporting details, precise words and visual imagery, and a conclusion. The purposes of writing that students produce are similar under each set of standards. Students write responses to literature, persuasive compositions, research reports, expository compositions, and narratives under the 1997 California English language arts standards.

Under the CCSS, students write routinely in both extended and short time frames for a range of discipline-specific tasks, purposes, and audiences. The CCSS for writing arguments and informative/explanatory pieces delineate more detail to the expectations, setting more specified and challenging criteria. In their arguments, students clearly organize the reasons and relevant evidence, and support claims with credible sources. For informative or explanatory texts, they use an extended array of organizational strategies to aid comprehension: definition, classification, compare/contrast, cause/effect, graphics, and multimedia resources. In their narrative writing, students learn how to organize events so the sequence unfolds naturally and use transition words and phrases for sequencing and shifting from one time frame to another. Narrative techniques such as dialogue, description, and pacing to develop characters and plot are incorporated.

Technology, including the Internet, plays a larger role in the CCSS. Students use technology in the production of writing, to interact and collaborate with others, and to conduct short research projects to answer a specific question. In sixth grade, students demonstrate a sufficient command of keyboarding skills to type at least three pages in a single sitting. Students also learn how to obtain information from both digital sources and print sources, summarize or paraphrase data or the conclusions of others (to avoid plagiarism), and provide bibliographic information on their sources.

Speaking and Listening

Students in sixth grade listen critically to speakers and media presentations, identify and interpret information from a variety of media and formats, deliver presentations, and ask questions to gain additional information. In their oral presentations, they use the structures found in the literature and informational text they read and in their own writing (e.g., a central idea or theme supported by facts, descriptive details, or observations). Students apply the same conventions of standard English when speaking that they use in their writing.

Both the 1997 California English language arts standards and the CCSS focus on students' listening and comprehension skills and their formal oral presentation skills. Students identify and analyze logical fallacies in a speaker's presentation or from a media source. When they present claims for findings, they sequence ideas logically, use appropriate facts and relevant details to support the main idea or theme, and speak clearly. They learn to use nonverbal elements to accentuate main ideas and themes and to use appropriate eye contact.

There are notable differences between the 1997 California English language arts standards and the CCSS. The 1997 California English language

arts standards focus on analyzing oral presentations and media communications. For example, the 1997 California English language arts standards ask students to relate a speaker's verbal communication with the nonverbal message, analyze the use of rhetorical devices, identify persuasive and propaganda techniques, and follow or restate multiple-step oral directions.

The CCSS emphasize collaborative discussions on sixth-grade topics and texts with diverse partners and in different groupings (one-on-one, in groups, or teacher-led). In these discussions, students come prepared to add to the discussion by referencing evidence reflecting ideas being discussed. Students follow rules for collegial discussions with specific goals, deadlines, and individual roles. They make comments that contribute to the discussion and elaborate on the remarks of others, pose or respond to questions, and demonstrate understanding of a variety of viewpoints through reflection and paraphrasing.

Multimedia components, as sources of information and complements to oral presentations, are another focus of the CCSS. Students in sixth grade interpret information presented in diverse media and formats (e.g., visual, quantitative, oral) and explain its contribution to the topic. They also can distinguish a speaker's argument that is supported by reasons from claims that are not. Multimedia components (e.g., graphics, images, music, sound) and visual displays are used to clarify information in presentations. Students learn to adapt their speech to a variety of contexts and tasks and are able to use formal English when it is appropriate.

Language

Students in sixth grade continue to build on language skills initiated in earlier grades and are introduced to new rules for grammar, usage, and punctuation. The specific rules or conventions they learn vary between the 1997 California English language arts standards and the CCSS. Students use their knowledge of language and its conventions when writing, speaking, listening, and reading.

Both sets of standards call for students to vary sentence patterns to promote understanding and expression. Under the 1997 California English language arts standards, students begin to use colons and semicolons, a skill that appears later in the CCSS. Under the CCSS, students begin to use punctuation marks (e.g., commas, dashes, parentheses) to set off parenthetical elements. Also, students learn how to recognize variations from standard English in their own writing and speaking, as well as in others.

The use of pronouns is emphasized in both the CCSS and the 1997 English language arts standards; the CCSS are more specific in types and usage. Students learn to use all types of pronouns properly, to recognize and correct shifts in pronoun number or person, to correct vague

pronouns, and ensure pronouns are in the proper case (subjective, objective, possessive).

In the 1997 California English language arts standards, vocabulary development standards are found in the Reading strand. In the CCSS, standards for vocabulary acquisition and use are found in the Language strand. Both the 1997 California English language arts standards and the CCSS cover a range of strategies for vocabulary acquisition, though in sixth grade independent reading is the primary means by which students increase their vocabulary. Under both sets of standards, students choose from a range of strategies to determine the meaning of words. Students understand and can explain figurative language and can distinguish among words with similar meanings (e.g., *stingy*, *scrimping*, *thrifty*). In addition, the CCSS emphasize using relationships between certain words (e.g., cause/effect, part/whole) to better understand words. Using common Greek or Latin affixes and roots for clues to word meanings is included as part of the CCSS in sixth grade, but was introduced in fourth grade in the 1997 standards.

The CCSS emphasize students' use of both print and digital reference materials (e.g., dictionaries, glossaries, thesauruses) to pronounce words, clarify the precise meaning of key words, or determine the parts of speech.

Standards for Literacy in History/Social Studies, Science, and Technical Subjects

Unique to the CCSS in grades six through twelve is the addition of standards for literacy in history/social studies, science, and technical subjects. (In kindergarten through grade five, the standards for literacy are embedded in the four strands of the standards.) The addition of these standards for literacy recognizes the role of English language arts teachers in developing students' literacy skills while clarifying that teachers in other content areas also share that responsibility. The standards for literacy recognize the need for students to be proficient in reading complex informational text and writing persuasive and explanatory text in a specific discipline.

In the CCSS, the standards for literacy in history/social studies, science, and technical subjects focus on reading and writing and are divided into three parts—reading standards for literacy in history/social studies; reading standards for literacy in science and technical subjects; and writing standards for literacy in history/social studies, science, and technical subjects. Standards in each part are organized into grade spans (six through eight, nine and ten, and eleven and twelve) and follow the same set of anchor standards used in English language arts (see Appendix A).

The shared responsibility of developing reading and writing across all content areas is not a new topic of discussion. Over the past 15 years,

California's content standards and frameworks have advocated and supported the idea that all teachers share the responsibility for developing student literacy. For example, guiding principles from the *Science Framework for California Public Schools* (California Department of Education 2004) identify what effective science programs do: (1) use standards-based connections with other core subjects to reinforce science teaching and learning; (2) develop students' command of academic language; and (3) use technology to teach students, assess their knowledge, develop information resources, and enhance computer literacy. California's history–social science standards include historical and social-science analysis skills. Examples of the skills from grades six through eight are as follows: (1) students frame questions that can be answered by historical study and research; (2) students distinguish fact from opinion in historical narratives and stories; and (3) students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long- and short-term causal relations.

These same skills are identified in the CCSS reading standards in history/social studies and science and technical subjects. The CCSS emphasize the need to use specific textual evidence to support analysis of text and compare and contrast information from different sources (i.e., primary versus secondary sources or doing an experiment versus reading about it). The CCSS highlight the importance of determining the meaning of content-related or domain-specific words as they are used in specific historical or scientific context.

As noted in the English language arts writing section above, the writing standards for literacy in CCSS extend the types of writing from the 1997 standards. Students are expected to write arguments based on content in a specific discipline, supporting the topic with relevant and accurate data and evidence. Informative or explanatory texts could include writing about a scientific procedure or retelling a historical event. All students' writing should be well organized and developed by using key facts or details. Students are expected to conduct research projects to answer a specific question, paraphrase or summarize others' work without plagiarizing, and to write consistently within both short and extended time frames.

Extra Support for Struggling Readers

By the end of sixth grade, students are expected to be fluent, independent readers who engage in the analysis of literature and informational text. Students who are not proficient in word-analysis skills are likely to experience academic difficulties. Early screening and intervention address specific areas of instruction in a timely manner. Struggling readers—any students experiencing difficulty learning to read, which may include those who use nonstandard English, English learners, and students with

disabilities—should be provided with additional support to become proficient in sixth-grade reading skills. Instructional support for students should include:

- flexible groupings for differentiated instruction;
- opportunities to preteach key skills, strategies, and concepts;
- intensive, explicit instruction in decoding and word-recognition skills, which may include materials at the reading level of students and that are age-appropriate;
- preteaching and reteaching the use of Greek and Latin affixes and roots as clues to determine meaning of unknown words;
- additional direct, explicit instruction in using informational text to analyze overall text structure and features;
- additional direct, explicit instruction in using informational text to cite evidence as required in text analysis;
- direct, explicit instruction in language development to address grammatical structures of oral and written standard English;
- vocabulary instruction embedded in context, including academic language and domain-specific vocabulary;
- building of background knowledge;
- reinforcement and extension of the regular classroom program.

For those students whose reading achievement is two or more years below grade level, placement in an Intensive Intervention Program in Reading/Language Arts should be considered. These intensive, stand-alone, accelerated programs are designed to address the instructional needs of students in grades four through eight whose reading achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rladoptedlist.asp>.)

Support for English Learners

English-language development (ELD) is a critical component of the language arts program for English learners and comes with direct, explicit, and systematic instruction in reading and writing. Instructional programs for English learners should be planned according to the students' assessed level of literacy (reading and writing) in English and their primary language as well as their proficiency in English (listening, speaking, reading, and writing). Students with strong literacy skills in their primary language are at an advantage: They can concentrate on learning English rather than on receiving initial instruction in reading and writing.

Students in sixth grade are expected to conduct deep analysis of literature and informational text on grade-level topics in all subject areas. English learners benefit from preteaching as they learn how to analyze the structure of informational text and how text features contribute to the development of the ideas in text. With guided instruction, students will also learn how to cite evidence to support their statements in their analysis of text.

When provided with differentiated instruction using informational text, English learners can acquire and practice using academic language as well as domain-specific words in different content areas.

As English learners participate and engage in collaborative discussions, they are given ample opportunities to hear vocabulary acquired from their reading. They can practice using this vocabulary by expressing themselves during one-on-one, small-group, or teacher-led discussions.

Providing explicit writing instruction, as well as models of research reports, on how to write research reports will expand English learners' writing skills. Students develop as writers by receiving close guidance in organization, searching for appropriate reference materials, incorporating and correctly using quotations and citations, and revising their research reports. Because English learners are still developing proficiency in English, students benefit from positive and corrective feedback from teachers on their writing and grammatical errors. English learners may need additional time and practice in writing for a variety of purposes and audiences to further their writing abilities.

English learners develop oral and written language through formal linguistic instruction that includes learning common phrases, idiomatic expressions, and language patterns, as well as phonological, morphological, syntactical, and semantic structures of English.

Explicit instruction on the rules of grammar and functions of pronouns help students use pronouns correctly, including intensive pronouns (e.g., *myself*, *ourselves*). Students may need additional instructional support to recognize and correct their own errors in pronoun use. They are provided with multiple opportunities to practice these skills both in speaking and writing and receive corrective teacher feedback. (For a more extensive list of grammar conventions, refer to the "Transition to the Common Core State Standards with California Additions: Planning ELD Instruction" chart that follows.)

For those students whose academic achievement is two or more years below grade level, placement in an Intensive Intervention Program for English Learners should be considered. These intensive, stand-alone, accelerated programs are designed for English learners in grades four through eight whose academic achievement is two or more years below grade level. (For additional information on state-adopted intensive intervention programs for English Learners, see Chapter 9 of the *Reading/Language Arts Framework for California Public Schools* [California Department of

Education 2007b] and the list of adopted instructional materials on the CDE Reading/Language Arts Web page at <http://www.cde.ca.gov/ci/rl/im/rladoptedlist.asp>.)

Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>. The CDE has published an excellent resource, *Improving Education for English Learners: Research-Based Approaches* (2010b), that provides the most comprehensive and up-to-date strategies to serve English learners. Guidelines for using ELD and SDAIE strategies, as well as recommended instructional practices, are provided. Information on the publication is available through the CDE Press Web page at <http://www.cde.ca.gov/re/pn/rc/>.

English learners need additional time for appropriate instructional support. The CCSS set rigorous expectations for student learning, and ELD instruction must accommodate these enhanced expectations. The following chart illustrates the enhancements in the CCSS for English language arts that may affect ELD instruction. This chart provides teachers with initial guidance in planning effective ELD instruction.

Transition to the Common Core State Standards with California Additions Planning ELD Instruction: Sixth Grade

Reading Standards for Literature

2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone. **(See grade 6 Language standards 4–6 for additional expectations.)**
5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.
9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Note: California additions are in bold typeface and underlined.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Sixth Grade *(continued)*

<p>Reading Standards for Informational Text</p>	<ol style="list-style-type: none"> 1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. 2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. 3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). 4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. (See grade 6 Language standards 4–6 for additional expectations.) 5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. <u>a. Analyze the use of text features (e.g., graphics, headers, captions) in popular media.</u> 7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. 8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not. 9. Compare and contrast one author’s presentation of events with that of another (e.g., a memoir written by and a biography on the same person). 10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
<p>Writing Standards</p>	<ol style="list-style-type: none"> 1. Write arguments to support claims with clear reasons and relevant evidence. <ol style="list-style-type: none"> b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Sixth Grade *(continued)*

Writing Standards
(continued)

2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - a. Introduce a topic **or thesis statement**; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
 - c. Use appropriate transitions to clarify the relationships among ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Establish and maintain a formal style.
 - f. Provide a concluding statement or section that follows from the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
 - a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
 - c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
 - d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
 - e. Provide a conclusion that follows from the narrated experiences or events.
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 6.)
6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Sixth Grade *(continued)*

<p>Writing Standards <i>(continued)</i></p>	<ol style="list-style-type: none"> 8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. 9. Draw evidence from literary or informational texts to support analysis, reflection, and research. <ol style="list-style-type: none"> a. Apply grade 6 Reading standards to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”). b. Apply grade 6 Reading standards to literary nonfiction (e.g., “Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”). 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
<p>Speaking and Listening Standards</p>	<ol style="list-style-type: none"> 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 6 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly. <ol style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. 2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study. 3. Delineate a speaker’s argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Sixth Grade *(continued)*

<p>Speaking and Listening Standards <i>(continued)</i></p>	<p>4. Present claims and findings (<u>e.g., argument, narrative, informative, response to literature presentations</u>), sequencing ideas logically and using pertinent descriptions, facts, and details <u>and nonverbal elements</u> to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p><u>a. Plan and deliver an informative/explanatory presentation that: develops a topic with relevant facts, definitions, and concrete details; uses appropriate transitions to clarify relationships; uses precise language and domain specific vocabulary; and provides a strong conclusion.</u></p> <p>5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>
<p>Language Standards</p>	<p>1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>a. Ensure that pronouns are in the proper case (subjective, objective, possessive).</p> <p>b. Use <u>all pronouns, including</u> intensive pronouns (e.g., <i>myself, ourselves</i>), <u>correctly</u>.</p> <p>c. Recognize and correct inappropriate shifts in pronoun number and person.</p> <p>d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).</p> <p>e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.</p> <p>2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <p>a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.</p> <p>3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>a. Vary sentence patterns for meaning, reader/listener interest, and style.</p> <p>b. Maintain consistency in style and tone.</p>

Transition to the Common Core State Standards with California Additions
Planning ELD Instruction: Sixth Grade (*continued*)

**Language
Standards**
(*continued*)

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content*, choosing flexibly from a range of strategies.
 - a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
 - c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy*, *scrimping*, *economical*, *unwasteful*, *thrifty*).
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 15, 2010. Content that is unique to California and was added by California to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/ela_ccs_recommendations.pdf (Outside Source). The grade-six CCSS for English Language Arts and Literacy in History/Social Studies, Science, and Technical Education were adopted by the California State Board of Education on August 2, 2010. The CCSS College and Career Readiness (CCR) Anchor Standards (Appendix A) define the literacy expectations for students entering college and careers and provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the State Board of Education action in August, they are essential to understanding the structure and cohesive nature of the CCSS.

A complete list of the grade-six 1997 California English language arts standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/elacontentstnds.pdf>.

Common Core State Standards with California Additions English Language Arts: Grade Six

Reading Standards for Literature

Key Ideas and Details

1.	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2.	Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3.	Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone. (<u>See grade 6 Language standards 4–6 for additional expectations.</u>)
5.	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
6.	Explain how an author develops the point of view of the narrator or speaker in a text.

Integration of Knowledge and Ideas

7.	Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.
8.	(Not applicable to literature)
9.	Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

10.	By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
-----	---

Reading Standards for Informational Text

Key Ideas and Details

1.	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2.	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3.	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. (See grade 6 Language standards 4–6 for additional expectations.)
5.	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. a. Analyze the use of text features (e.g., graphics, headers, captions) in popular media.
6.	Determine an author’s point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas

7.	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
8.	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.

Integration of Knowledge and Ideas *(continued)*

- | | |
|----|---|
| 9. | Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person). |
|----|---|

Range of Reading and Level of Text Complexity

- | | |
|-----|---|
| 10. | By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range. |
|-----|---|

Writing Standards**Text Types and Purposes**

- | | |
|----|---|
| 1. | <p>Write arguments to support claims with clear reasons and relevant evidence.</p> <ol style="list-style-type: none"> a. Introduce claim(s) and organize the reasons and evidence clearly. b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from the argument presented. |
| 2. | <p>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ol style="list-style-type: none"> a. Introduce a topic or thesis statement; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate transitions to clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from the information or explanation presented. |
| 3. | <p>Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ol style="list-style-type: none"> a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. |

Text Types and Purposes *(continued)*

	<p>d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.</p> <p>e. Provide a conclusion that follows from the narrated experiences or events.</p>
--	--

Production and Distribution of Writing

4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
5.	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 6.)
6.	Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

7.	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
8.	Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
9.	<p>Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grade 6 Reading standards to literature (e.g., “Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics”).</p> <p>b. Apply grade 6 Reading standards to literary nonfiction (e.g., “Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”).</p>

Range of Writing

10.	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
-----	---

Speaking and Listening Standards

Comprehension and Collaboration

1.	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grade 6 topics, texts, and issues</i> , building on others' ideas and expressing their own clearly. <ol style="list-style-type: none"> a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
2.	Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
3.	Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

Presentation of Knowledge and Ideas

4.	Present claims and findings (e.g., argument, narrative, informative, response to literature presentations), sequencing ideas logically and using pertinent descriptions, facts, and details and nonverbal elements to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. <p>a. Plan and deliver an informative/explanatory presentation that: develops a topic with relevant facts, definitions, and concrete details; uses appropriate transitions to clarify relationships; uses precise language and domain specific vocabulary; and provides a strong conclusion.</p>
5.	Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
6.	Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Language Standards

Conventions of Standard English

1.	<p>Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> a. Ensure that pronouns are in the proper case (subjective, objective, possessive). b. Use all pronouns, including intensive pronouns (e.g., <i>myself, ourselves</i>), correctly. c. Recognize and correct inappropriate shifts in pronoun number and person.* d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.*
2.	<p>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* b. Spell correctly.

Knowledge of Language

3.	<p>Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <ol style="list-style-type: none"> a. Vary sentence patterns for meaning, reader/listener interest, and style.* b. Maintain consistency in style and tone.*
----	---

Vocabulary Acquisition and Use

4.	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>). c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
----	--

*The following skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the chart "Language Progressive Skills, by Grade" on page 47 in the CCSS.

Vocabulary Acquisition and Use (*continued*)

5.	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., personification) in context. b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy</i> , <i>scrimping</i> , <i>economical</i> , <i>unwasteful</i> , <i>thrifty</i>).
6.	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Common Core State Standards with California Additions
Reading Standards for Literacy in History/Social Studies,
Science, and Technical Education
Grades Six Through Eight

Reading Standards for Literacy in History/Social Studies

Key Ideas and Details

1.	Cite specific textual evidence to support analysis of primary and secondary sources.
2.	Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
3.	Identify key steps in a text’s description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

Craft and Structure

4.	Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
5.	Describe how a text presents information (e.g., sequentially, comparatively, causally).
6.	Identify aspects of a text that reveal an author’s point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

Integration of Knowledge and Ideas

7.	Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
8.	Distinguish among fact, opinion, and reasoned judgment in a text.
9.	Analyze the relationship between a primary and secondary source on the same topic.

Range of Reading and Level of Text Complexity

10.	By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.
-----	--

Reading Standards for Literacy in Science and Technical Subjects

Key Ideas and Details

1.	Cite specific textual evidence to support analysis of science and technical texts.
2.	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
3.	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Note: California additions are in bold typeface and underlined.

Craft and Structure

4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6–8 texts and topics</i> .
5.	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
6.	Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

Integration of Knowledge and Ideas

7.	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
8.	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
9.	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Range of Reading and Level of Text Complexity

10.	By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.
-----	---

**Writing Standards for Literacy in History/Social Studies, Science,
and Technical Subjects**

Text Types and Purposes

1.	<p>Write arguments focused on <i>discipline-specific content</i>.</p> <ol style="list-style-type: none"> Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. Establish and maintain a formal style. Provide a concluding statement or section that follows from and supports the argument presented.
2.	<p>Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <ol style="list-style-type: none"> Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

Text Types and Purposes *(continued)*

	<ul style="list-style-type: none"> b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style and objective tone. f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
3.	(See note; not applicable as a separate requirement.)

Production and Distribution of Writing

4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5.	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
6.	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

Research to Build and Present Knowledge

7.	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
8.	Gather relevant information from multiple print and digital sources (primary and secondary), using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9.	Draw evidence from informational texts to support analysis reflection, and research.

Range of Writing

10.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
-----	--

Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history/social studies, students must be able to incorporate narrative accounts into their analyses of individuals or events of historical import. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

Mathematics

Overview

Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become adept at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. It is like an inverted pyramid, with the entire weight of the developing subject, including readiness for algebra, resting on the foundations built in the early grades.

In August 2010, California adopted new standards in mathematics: the Common Core State Standards (CCSS), with California additions. The CCSS comprise standards developed by the state-led CCSS Initiative and material taken from the 1997 California mathematics standards. The new standards will be implemented gradually over the next several years as curriculum frameworks, instructional materials, and assessments based on the CCSS are adopted.

There are many similarities between the CCSS and the 1997 California mathematics standards, but there are also a few noteworthy differences. For instance, the CCSS are organized by “domains” that add grade-level focus and vary slightly by grade. The domains for sixth grade are Ratios and Proportional Relationships, the Number System, Expressions and Equations, Geometry, and Statistics and Probability. Furthermore, the CCSS do not include “key standards” as in the 1997 California mathematics standards. Instead, the CCSS are designed to have a greater focus at each grade and to develop mathematics topics in depth. In the early grades, the CCSS continue to emphasize concepts necessary for the study of more advanced mathematics in later years. To ensure that students have adequate time to achieve mastery, some of the 1997 California mathematics standards familiar to California’s sixth-grade teachers will be taught in different grades after the CCSS are fully implemented.

This section provides an overview of the new CCSS for sixth-grade mathematics, including some highlights of how the sixth-grade curriculum, based on the 1997 California mathematics standards, changes with the implementation of the new CCSS. It includes a review of the important mathematical concepts and skills from fifth grade (prerequisite skills) and guidance on areas of mathematics that may be challenging for some English learners. A complete list of the sixth-grade CCSS for mathematics can be found at the end of this section. A complete list of the sixth-grade 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

What Sixth-Grade Students Should Know

Students entering sixth grade who have met the fifth-grade CCSS for mathematics are able to write and evaluate simple numerical expressions, including those that contain parentheses, brackets, or braces. Students are able to express a whole number in the range 2–50 as a product of its prime factors. They can form ordered pairs from numerical patterns generated from given rules and graph the ordered pairs on a coordinate plane.

By the start of sixth grade, students can fluently calculate multi-digit addition, subtraction, multiplication, and division of positive whole numbers. Students can find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors. They demonstrate an understanding of operations with decimals as they accurately add, subtract, multiply, and divide decimals to hundredths. Students entering sixth grade are able to use whole-number exponents to denote powers of 10.

Students have an understanding of equivalent fractions and can add and subtract fractions with unlike denominators, and multiply a fraction or whole number by a fraction. They interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$) and can divide unit fractions by whole numbers and whole numbers by unit fractions.

While in fifth grade, students learned to convert among different-sized standard measurement units within a given measurement system and solve related problems. They displayed data in graphs and interpreted the meaning of the data to solve problems.

Students entering sixth grade understand the relationship between the formulas for the area of a triangle, parallelogram, and rectangle and can use those formulas to solve problems. They can apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms with whole-number edge lengths. Students can solve problems related to the sum of the angles of a triangle or a quadrilateral. They are able to graph points in the first quadrant of the coordinate plane to solve real-world and mathematical problems.

What Students Learn in Sixth Grade

Sixth-grade students develop an understanding of the concept of a ratio and use ratio reasoning to solve a variety of real-world and mathematical problems, including those involving unit pricing and constant speed. Students extend their understanding of operations with fractions to include dividing fractions by fractions. Sixth-graders compute fluently with multi-digit numbers and decimals and find the greatest common factor and least common multiples of certain whole numbers.

Students expand their scope of numbers to the system of rational numbers, which includes negative rational numbers and integers. They locate

rational numbers on a number line, add and subtract negative numbers, and graph points in all four quadrants of the coordinate plane. Students write expressions and equations with variables and apply the properties of operations to generate equivalent expressions.

Students begin to think statistically as they summarize numerical data sets by quantitative measures of center and variability. They build upon the foundation of area to determine the area and volume of more complex shapes.

Ratios and Proportional Relationships

In both the 1997 California mathematics standards and the CCSS, sixth-grade students develop an understanding of ratio concepts and use ratio reasoning to solve problems. They use ratio language to describe a relationship between two quantities. For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” Students use appropriate language to associate a unit rate a/b with a ratio $a:b$ with $b \neq 0$ (b not equal to zero). For example, “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.” (Expectations for unit rates in this grade are limited to noncomplex fractions.)

Students use tables and graphs to compare ratios and solve problems involving rates and proportions, including problems about unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?

With full implementation of the CCSS, some concepts in the 1997 California standards will be covered at different grades. For example, in the sixth-grade CCSS, students find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity) and solve problems using ratios and rates, a topic found at fifth grade in the 1997 California standards. However, solving problems involving discounts, interest, and tips and representing proportional relationships with equations, which is a sixth-grade 1997 standard, will be covered at seventh grade in the CCSS.

The Number System

Conceptual understanding and fluency with operations involving whole numbers, fractions, and decimals are critical for students’ success in mathematics at later grades. In both the 1997 California mathematics standards and the CCSS, sixth-grade students relate previous knowledge about multiplication and division to explain and compute problems involving division of fractions by fractions. They find the greatest common factor (or greatest common divisor) and the least common multiple of two whole numbers,

concepts that play a role in the teaching of fractions. Division of a fraction by a fraction is introduced at grade five in the 1997 California standards.

In both the 1997 California mathematics standards and the CCSS, sixth-grade students use the standard algorithms to fluently add, subtract, multiply, and divide multi-digit numbers and decimals. In the CCSS, sixth-grade students apply and extend their previous understanding of numbers to the system of rational numbers, which includes negative numbers. Students reason about the order of rational numbers and use numbers to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level). Students find and position rational numbers on a number line and plot points in the coordinate plane with negative number coordinates. Students also analyze the relative position of two numbers on a number line to interpret statements of inequality. In the 1997 California standards, negative integers are introduced in fourth grade and developed in fifth grade in a similar way.

Sixth-graders apply properties of operations to add and subtract rational numbers. They understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction, depending on whether q is positive or negative. Students show that a number and its opposite have a sum of 0 (are additive inverses), and they understand subtraction of rational numbers as adding the additive inverse.

With full implementation of the CCSS, some topics covered at other grades in the 1997 California standards will be addressed at sixth grade: for example, addition and subtraction with negative numbers and graphing points in all four quadrants of the coordinate plane (both topics from grade five) and the absolute value of a rational number (a topic from grade seven). In addition, multiplication and division with negative integers, covered at sixth grade in the 1997 California standards, will move to seventh grade in the CCSS.

Expressions and Equations

In the CCSS, students apply and extend their previous understandings of arithmetic to algebraic expressions as they evaluate numerical expressions with whole-number exponents and write, read, and evaluate expressions in which letters stand for numbers. Both concepts are introduced in fifth grade in the 1997 California standards. Sixth-grade students identify parts of an expression using mathematical terminology (e.g., *coefficient* and *term*)—a concept covered in seventh grade in the 1997 California standards. In addition, students apply the properties of operations to generate equivalent expressions. For example, students apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; and they apply the distributive property to the expression $24x + 18y$

to produce the equivalent expression $6(4x + 3y)$. The use of the distributive property in expressions with variables is covered at fifth grade in the 1997 California standards.

Students in sixth grade solve equations and inequalities using substitution to determine whether a given number makes an equation or inequality true. Solving inequalities is covered at grade seven in the 1997 California standards. Students also write and solve equations in the form of $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers. The concept of writing and solving equations involving linear functions is introduced in fifth grade in the 1997 California standards.

In both the 1997 California standards and the CCSS, students represent two quantities in a real-world problem that change in relationship to one another as they write an equation to express one quantity (dependent variable) in terms of the other quantity (independent variable). Students use graphs and tables to analyze the relationship between dependent and independent variables and relate these to the equation. With full implementation of the CCSS, students will solve problems using the four operations, with positive and negative integers, in seventh grade—a concept covered in sixth grade in the 1997 California standards.

Geometry

In the CCSS, sixth-grade students solve problems involving area, surface area, and volume. They know and use the formulas for calculating the area and circumference of a circle. Students find the areas of triangles, special quadrilaterals, and polygons by composing shapes into rectangles or decomposing shapes into triangles and other shapes. Students reason about the volume of a right rectangular prism with fractional edge lengths and then apply the formulas $V = l \times w \times h$ and $V = b \times h$ to solve related problems. Sixth-grade students use nets made up of rectangles and triangles to find the surface areas of three-dimensional figures. Students prepare for work on scale drawings in later grades by drawing polygons in the coordinate plane when given coordinates for the vertices. Students also draw geometric shapes with given conditions (such as triangles from three measures of angles).

With full implementation of the CCSS, some sixth-grade topics in the 1997 California standards will be covered at different grades: for example, the volume of triangular prisms (will be addressed in seventh grade) and the volume of cylinders (will be covered in eighth grade). Similarly, some topics addressed at other grades in the 1997 California standards will move to sixth grade in the CCSS: for example, the concept of radius and diameter of a circle (a fourth-grade topic) and how to calculate the surface area of three-dimensional objects (a fifth-grade topic).

Statistics and Probability

Sixth-grade students begin to develop their ability to think statistically. They understand that a set of data (collected to answer a question) will have a distribution, which can be described by its center, spread, and shape. Students calculate the median, mean, and variability of a set of data and relate these to the overall shape of the distribution. Students display, summarize, and describe numerical data sets, considering the context in which the data were collected. In the CCSS, students use number lines, dot plots, histograms, and box plots to display numerical data. In the 1997 California standards, students in grade five calculate the median and mean and use histograms to display data, and in grade seven they use box plots to display data.

With full implementation of the CCSS, several sixth-grade topics in the 1997 California standards will be covered in seventh grade. Some examples include the use of random sampling to collect information about a given population and the use of theoretical and experimental probabilities to make predictions about events.

Support for English Learners

Students need to develop knowledge of mathematics as a language. However, the academic language of mathematics instruction and the specialized vocabulary of mathematics can create particular challenges for English learners.

The language of mathematics is precise compared with the English used in common discourse. English learners need opportunities to develop their knowledge of the features of language that are used to teach mathematics, such as *semantics* (how to translate the words of a problem into a symbolic representation), *syntax* (the order of words and phrases), and *mathematical discourse* (writing or talking about mathematical terms, concepts, and so on). The specialized vocabulary of mathematics should be explicitly taught and reinforced throughout the year.

The following points address areas that may pose special challenges for English learners in the early grades:

- At an early stage, students may have difficulty with English words such as *first*, *second*, *last*, *before*, *every*, *each*, *more*, and *equal*. Students may be unfamiliar with *sum*, *difference*, *solve*, *length*, and *value*.
- The different meanings of multiple-meaning words should be explicitly taught. These words may have a meaning in common discourse that is different from the meaning in mathematics—such as *table* or *face* (as in the *face* of a clock).

- The place value of some numbers between 10 and 20 is not obvious from their names (e.g., the number 16 is called *sixteen* in English, but “ten plus six” in other languages).
- The narrative descriptions of a word problem may require language skills that students have not yet mastered, particularly when the language of a word problem is ambiguous or includes idioms (e.g., *a dime a dozen*), comparatives (*greater than, less than, most often, least often*), or position words (*behind, below, in front of, to the right or left of*).
- Students may have learned different symbols and procedures that may result in the same answer. In some countries, students are expected to do most steps mentally instead of writing out each step.

Instruction in mathematics, along with critical-thinking skills, should be promoted despite low literacy or limited proficiency in the English language. Specially designed academic instruction in English (SDAIE) is one instructional strategy to meet the needs of English learners. For additional resources to support the teaching of English learners, please visit the CDE English Learners Web page at <http://www.cde.ca.gov/sp/el/>.

Use of Calculators

Although not discussed in the CCSS, the use of calculators plays a special role in mathematics teaching and learning. Initially, it is important that students in the early grades develop a facility with basic arithmetic skills without reliance on calculators. In later grades, when students are ready to use calculators to their advantage, calculators can provide a very useful tool not only for solving problems in various contexts but also for broadening students' mathematical horizons.

The Standards

The CCSS, with California additions, that follow are the prepublication version of the standards prepared by the Sacramento County Office of Education (SCOE), updated on October 18, 2010. Content that is unique to California and was added to the multistate common core standards is in **bold typeface and underlined**. The SCOE document is available online at http://www.scoe.net/castandards/agenda/2010/math_ccs_recommendations.pdf (Outside Source). These grade-six CCSS for mathematics were adopted by the California State Board of Education on August 2, 2010.

A complete list of the grade-six 1997 California mathematics standards is located on the CDE Content Standards Web page at <http://www.cde.ca.gov/be/st/ss/documents/mathstandard.pdf>.

Common Core State Standards with California Additions Mathematics: Grade Six

Ratios and Proportional Relationships (6.RP)

Understand ratio concepts and use ratio reasoning to solve problems.

1.	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. <i>For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."</i>
2.	Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. <i>For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."¹</i>
3.	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. <ol style="list-style-type: none"> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $30/100$ times the quantity); solve problems involving finding the whole, given a part and the percent. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

1. Expectations for unit rates in this grade are limited to non-complex fractions.

The Number System (6.NS)

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

- | | |
|----|--|
| 1. | Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$-cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?</i> |
|----|--|

Compute fluently with multi-digit numbers and find common factors and multiples.

- | | |
|----|---|
| 2. | Fluently divide multi-digit numbers using the standard algorithm. |
| 3. | Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. |
| 4. | Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i> |

Apply and extend previous understandings of numbers to the system of rational numbers.

- | | |
|----|--|
| 5. | Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. |
| 6. | <p>Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <ol style="list-style-type: none"> Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. |

Apply and extend previous understandings of numbers to the system of rational numbers. (continued)

7.	<p>Understand ordering and absolute value of rational numbers.</p> <ol style="list-style-type: none"> Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i> Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C.</i> Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i> Distinguish comparisons of absolute value from statements about order. <i>For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</i>
7.1	<p><u>Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. (Common Core Standard 7.NS.1)</u></p> <ol style="list-style-type: none"> <u>Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.</i> (Common Core Standard 7.NS-1a)</u> <u>Understand $p + q$ as the number located a distance q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. (Common Core Standard 7.NS.1b)</u> <u>Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. (Common Core Standard 7.NS.1c)</u> <u>Apply properties of operations as strategies to add and subtract rational numbers. (Common Core Standard 7.NS.1d)</u>
8.	<p>Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p>

Expressions and Equations (6.EE)

Apply and extend previous understandings of arithmetic to algebraic expressions.

1.	Write and evaluate numerical expressions involving whole-number exponents.
2.	<p>Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>a. Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation "Subtract y from 5" as $5 - y$.</i></p> <p>b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. <i>For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.</i></p> <p>c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.</i></p>
3.	Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.</i>
4.	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <i>For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.</i>

Reason about and solve one-variable equations and inequalities.

5.	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6.	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
7.	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
8.	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Represent and analyze quantitative relationships between dependent and independent variables.

- | | |
|----|---|
| 9. | Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i> |
|----|---|

Geometry (6.G)

Solve real-world and mathematical problems involving area, surface area, and volume.

- | | |
|-----------|--|
| 1. | Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. |
| 2. | Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems. |
| 3. | Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. |
| 4. | Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. |
| <u>5.</u> | <u>Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. (Common Core Standard 7.G.2)</u> |
| <u>6.</u> | <u>Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle. (Common Core Standard 7.G.4)</u> |
-

Statistics and Probability (6.SP)

Develop understanding of statistical variability.

1.	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.</i>
2.	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
3.	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

Summarize and describe distributions.

4.	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
5.	Summarize numerical data sets in relation to their context, such as by: <ol style="list-style-type: none"> a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The CCSS for Mathematical Practice describe ways in which students of mathematics ought to engage with the subject matter as they grow in mathematical maturity and expertise. For a complete description of the eight Standards for Mathematical Practice, see Appendix B.

CCSS Domains

The CCSS are organized by domains. The following table lists all of the domains that apply to kindergarten through grade eight, and it identifies which domains are addressed in kindergarten through grade six. The shaded row indicates a domain to be covered at later grades.

Domains	Kindergarten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six
Counting and Cardinality (CC)	X						
Operations and Algebraic Thinking (OA)	X	X	X	X	X	X	
Number and Operations in Base Ten (NBT)	X	X	X	X	X	X	
Measurement and Data (MD)	X	X	X	X	X	X	
Geometry (G)	X	X	X	X	X	X	X
Number and Operations—Fractions (NF)				X	X	X	
Ratios and Proportional Relationships (RP)							X
The Number System (NS)							X
Expressions and Equations (EE)							X
Statistics and Probability (SP)							X
Functions (F)							

Appendix A

CCSS College and Career Readiness Anchor Standards

Note: The CCSS College and Career Readiness (CCR) Anchor Standards define the literacy expectations for students entering college and careers, and they provide the foundation for the K–12 English language arts standards. Although the CCR Anchor Standards were not part of the California State Board of Education action in August 2010, they are essential to understanding the structure and cohesive nature of the document.

Reading

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.¹
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

1. Please see “Research to Build and Present Knowledge” in Writing and “Comprehension and Collaboration” in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Integration of Knowledge and Ideas (*continued*)

- Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

- Read and comprehend complex literary and informational texts independently and proficiently.

Writing

Text Types and Purposes²

- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

- Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

2. These broad types of writing include many subgenres. See Appendix A for definitions of key writing types. http://www.corestandards.org/assets/Appendix_A.pdf.

Speaking and Listening

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and that the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Language

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of word relationships and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Appendix B

Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education. The first of these are the National Council of Teachers of Mathematics (NCTM) process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning; strategic competence; conceptual understanding (comprehension of mathematical concepts, operations and relations); procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately); and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who

can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y .

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word

“understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.

In this respect, those content standards which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

References

- California Commission on Teacher Credentialing and California Department of Education. 1997. *California Standards for the Teaching Profession*. Sacramento: California Department of Education.
- California Department of Education. 1991. *Fact Sheet 1990-91*. Sacramento: California Department of Education.
- _____. 2002. *English-Language Development Standards for California Public Schools: Kindergarten Through Grade Twelve*. Sacramento: California Department of Education.
- _____. 2004. *Science Framework for California Public Schools: Kindergarten Through Grade Twelve*. Sacramento: California Department of Education.
- _____. 2007a. *Closing the Achievement Gap: Report of Superintendent Jack O'Connell's California P-16 Council*. Sacramento: California Department of Education.
- _____. 2007b. *Reading/Language Arts Framework for California Public Schools*. Sacramento: California Department of Education.
- _____. 2008. *California Preschool Learning Foundations, Volume 1*. Sacramento: California Department of Education.
- _____. 2010a. DataQuest census reports. <http://dq.cde.ca.gov/dataquest/> (accessed October 1, 2010).
- _____. 2010b. *Improving Education for English Learners: Research-Based Approaches*. Sacramento: California Department of Education.
- _____. 2010c. "State Schools Chief Jack O'Connell Releases 2009-10 Accountability Progress Report." News release, September 13, 2010.
- _____. 2010d. *2009-10 Academic Performance Index Reports Information Guide*. <http://www.cde.ca.gov/ta/ac/ap/documents/infoguide09.pdf> (accessed October 1, 2010).
- Sacramento County Office of Education. 2010a. *Recommendations for K-12 Common Core State Standards for English Language Arts*. Sacramento: Sacramento County Office of Education.
- _____. 2010b. *Recommendations for K-12 Common Core State Standards for Mathematics*. Sacramento: Sacramento County Office of Education.
- U.S. Department of Education. 2007. *No Child Left Behind: Teacher-to-Teacher Initiative*. <http://www.ed.gov/teachers/how/tools/initiative/factsheet.pdf> (accessed October 1, 2010).